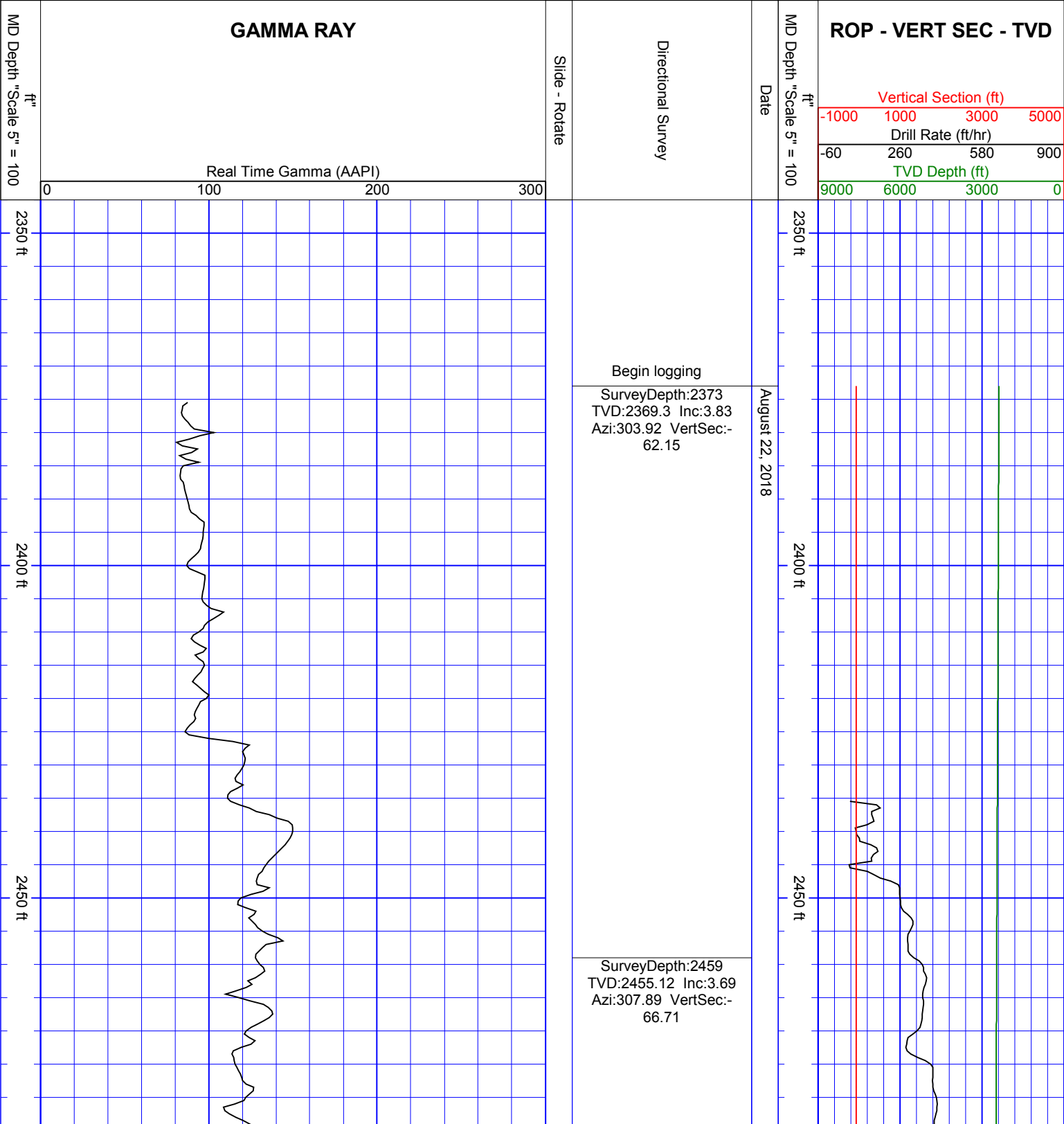
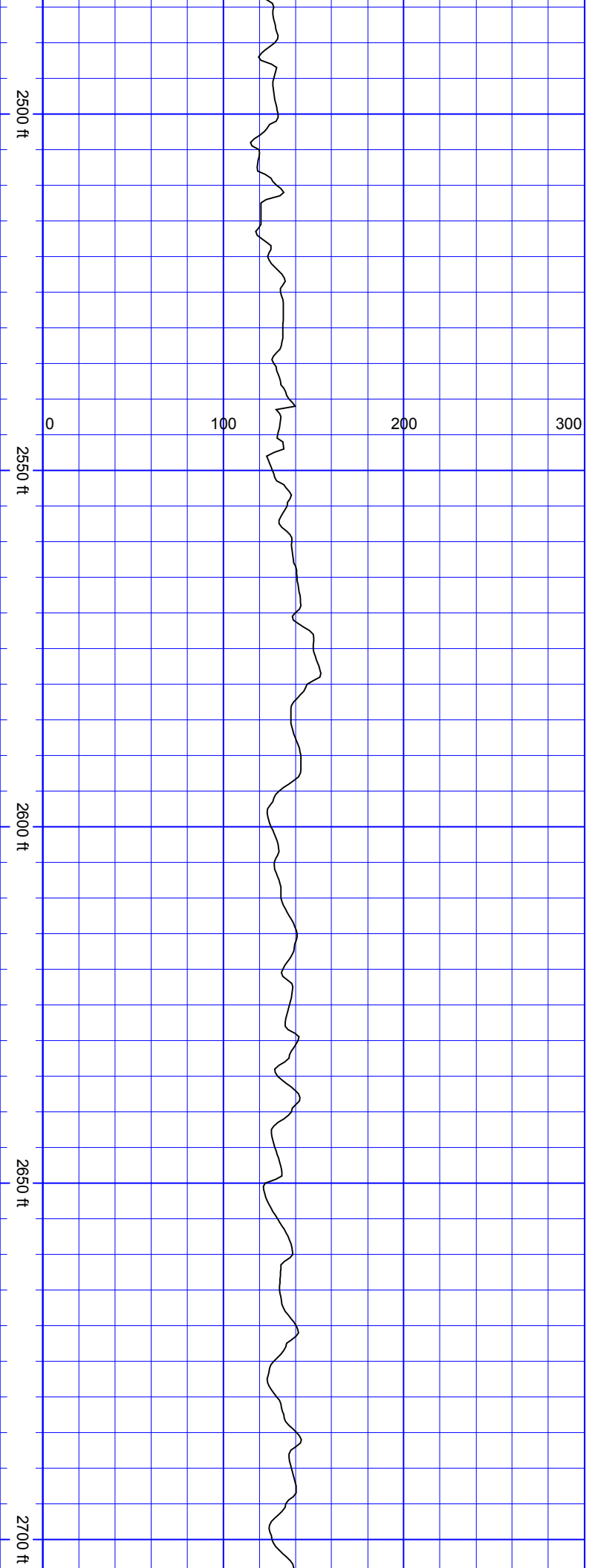




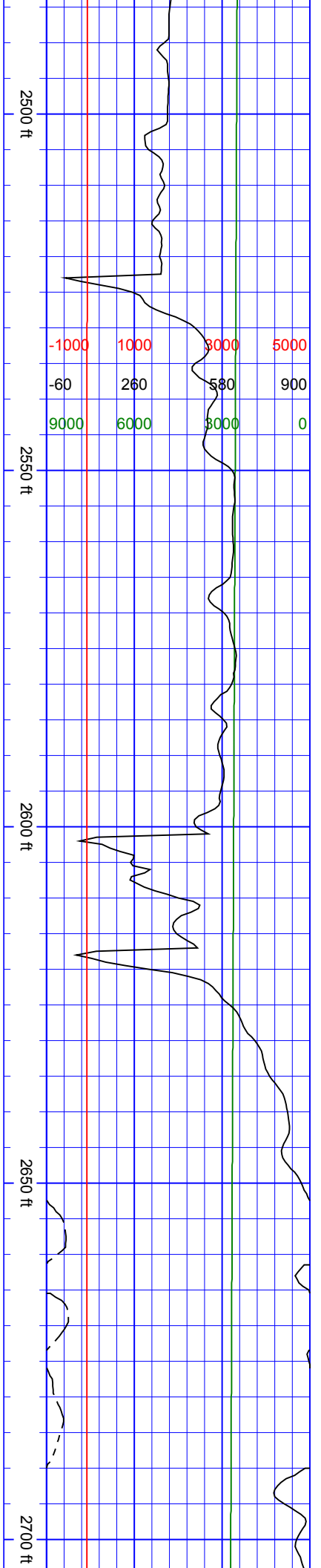
Interpretations of this data by Cathedral Energy Services will be of best judgment as to correctness. Cathedral Energy Services cannot and does not guarantee the accuracy or correctness of interpretations or any surveys derived therefrom. Cathedral Energy Services makes no warranties of performance, results, fitness or suitability for any particular purposes with respect to the goods being furnished under the terms and conditions. Cathedral Energy Services warrants that the equipment furnished will conform to Cathedral Energy Services published specifications in effect at the time and be in good working order.

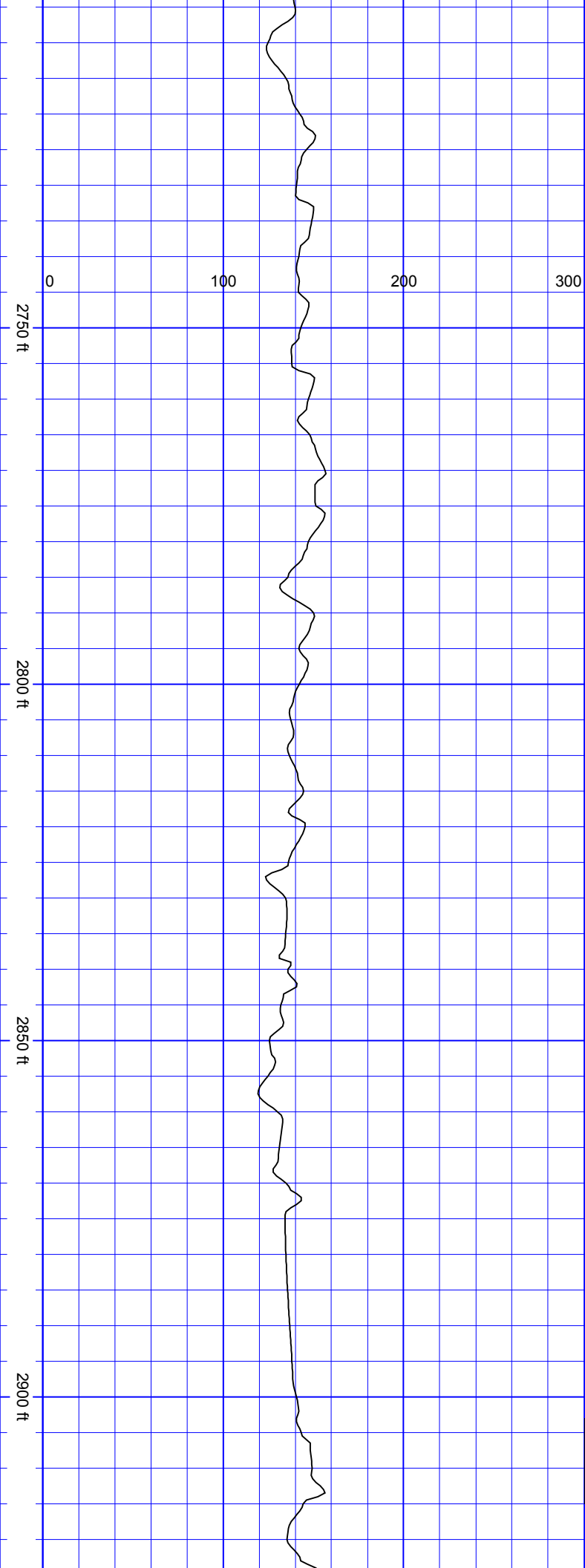




SurveyDepth:2554  
TVD:2549.93 Inc:3.52  
Azi:303.93 VertSec:-  
71.54

SurveyDepth:2648  
TVD:2643.75 Inc:3.43  
Azi:300.42 VertSec:-  
76.35

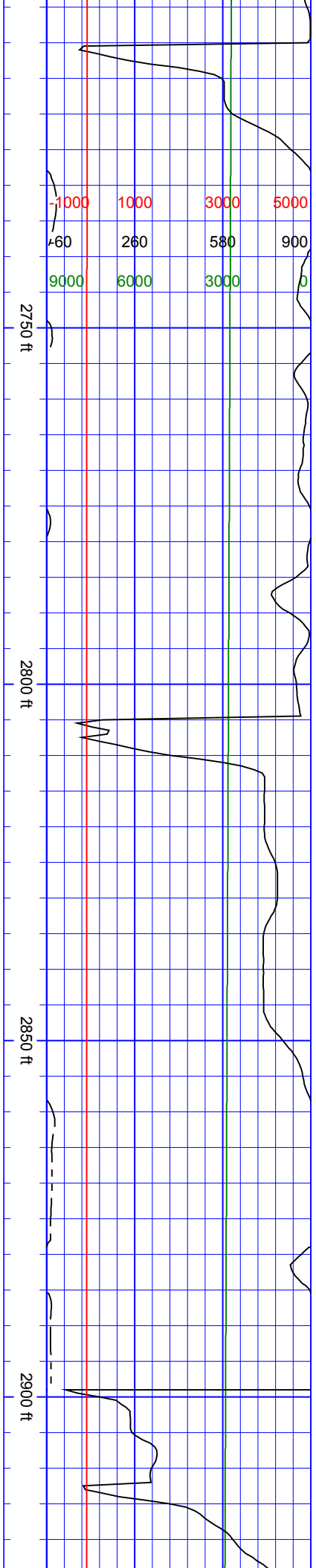


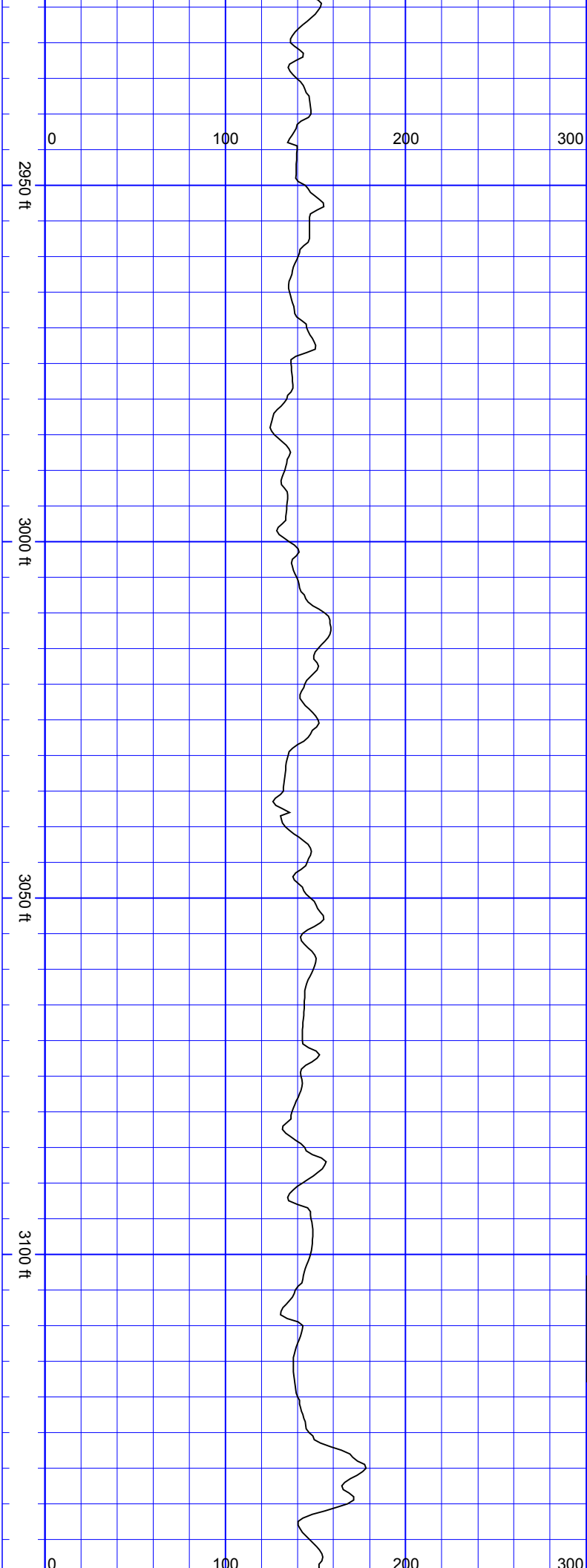


SurveyDepth:2743  
TVD:2738.6 Inc:3.12  
Azi:295.41 VertSec:-81.13

SurveyDepth:2837  
TVD:2832.47 Inc:2.94  
Azi:290.75 VertSec:-85.7

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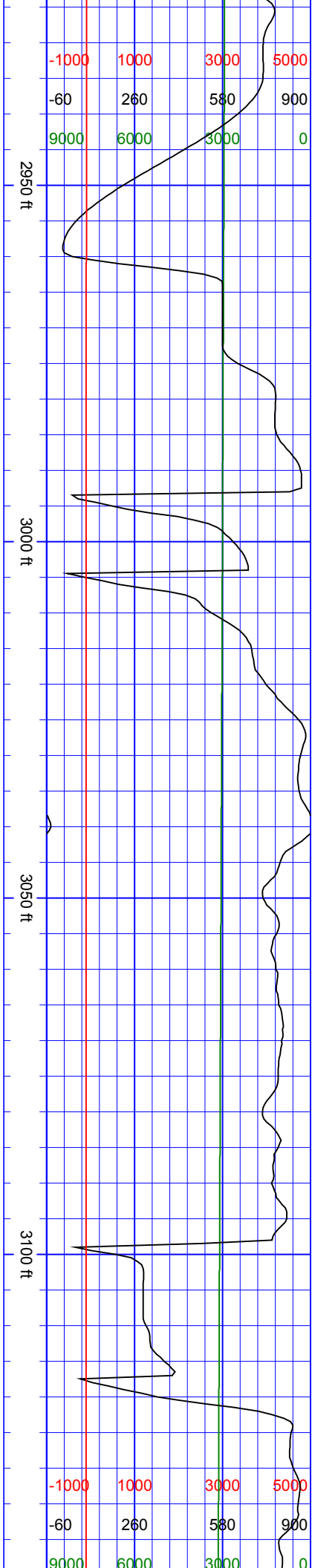


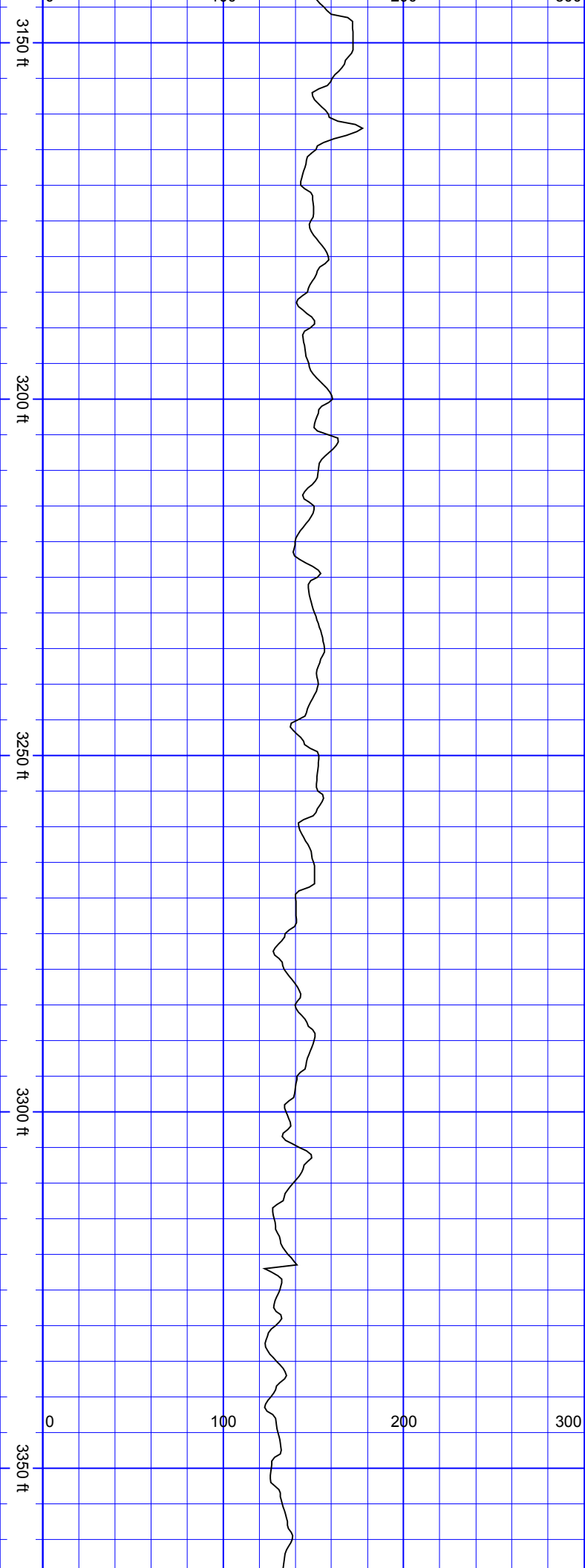
SurveyDepth:2942  
TVD:2937.28 Inc:4  
Azi:311.75 VertSec:-  
90.94

SurveyDepth:3037  
TVD:3032.08 Inc:3.43  
Azi:306.66 VertSec:-  
95.69

SurveyDepth:3131  
TVD:3125.8 Inc:5.36  
Azi:316.15 VertSec:-  
100.98

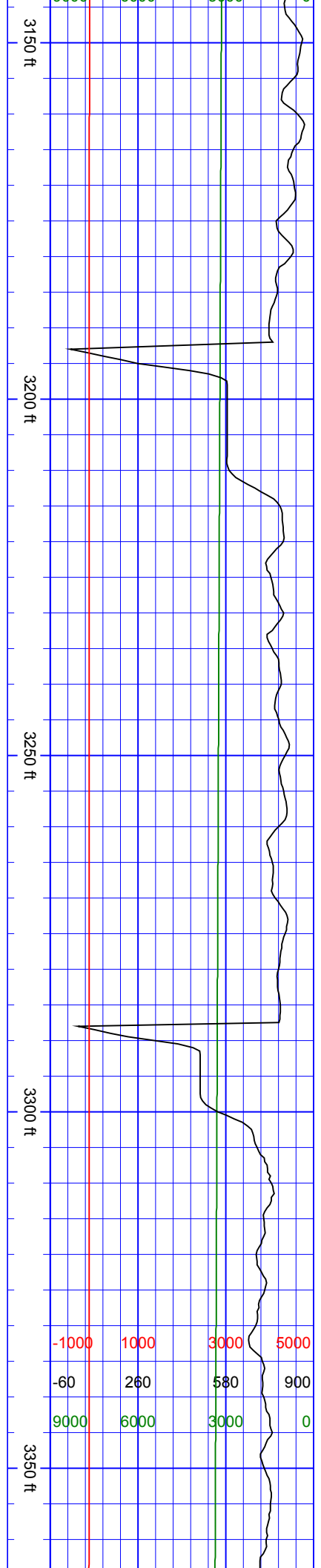
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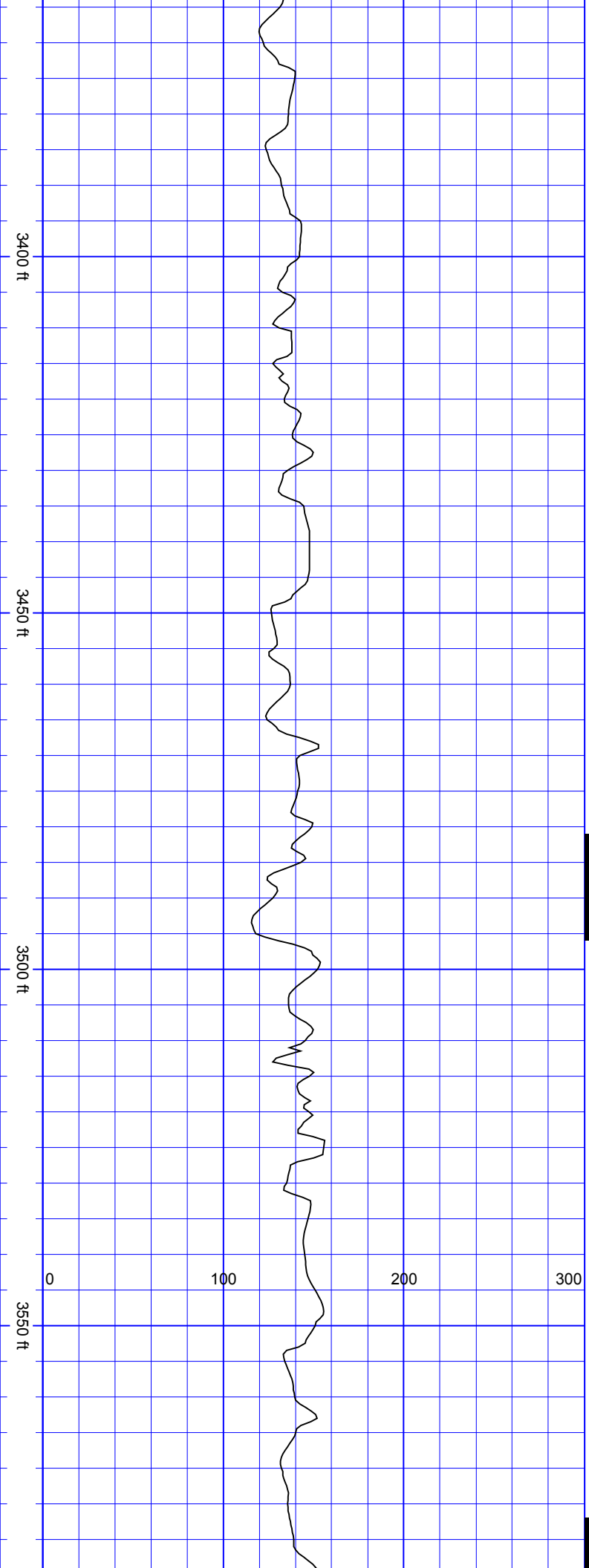




SurveyDepth:3226  
TVD:3220.44 Inc:4.61  
Azi:318.96 VertSec:-  
106.55

SurveyDepth:3321  
TVD:3315.16 Inc:4.18  
Azi:315.62 VertSec:-  
111.47



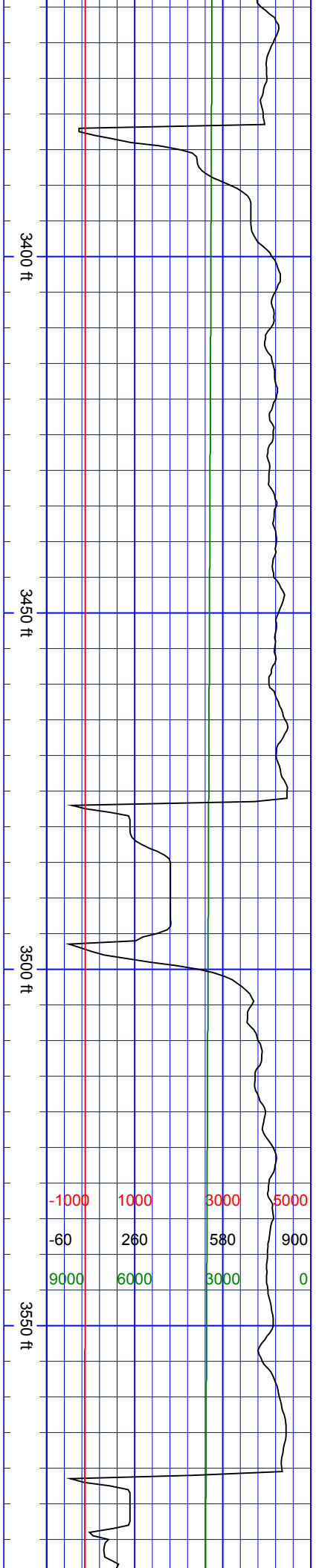


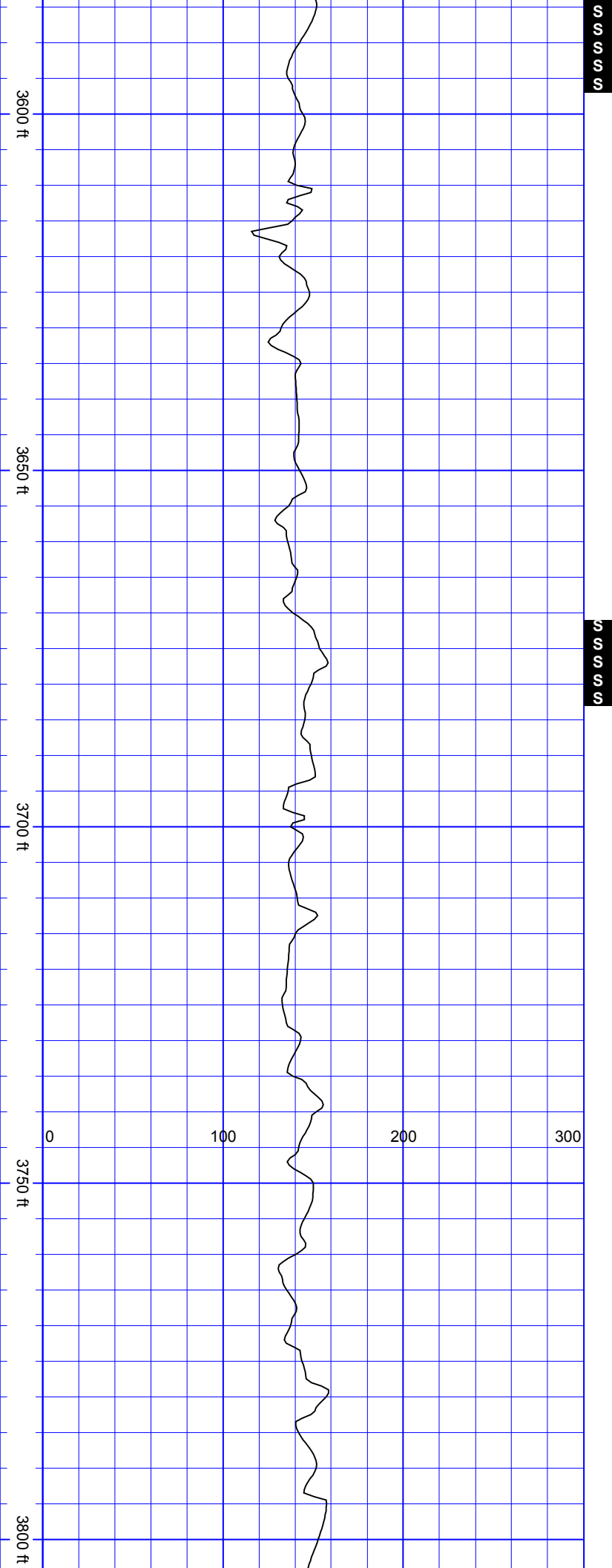
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SurveyDepth:3415  
TVD:3408.94 Inc:3.56  
Azi:313.69 VertSec:-  
115.97

SurveyDepth:3511  
TVD:3504.76 Inc:3.74  
Azi:287.85 VertSec:-  
121.1

SSSS





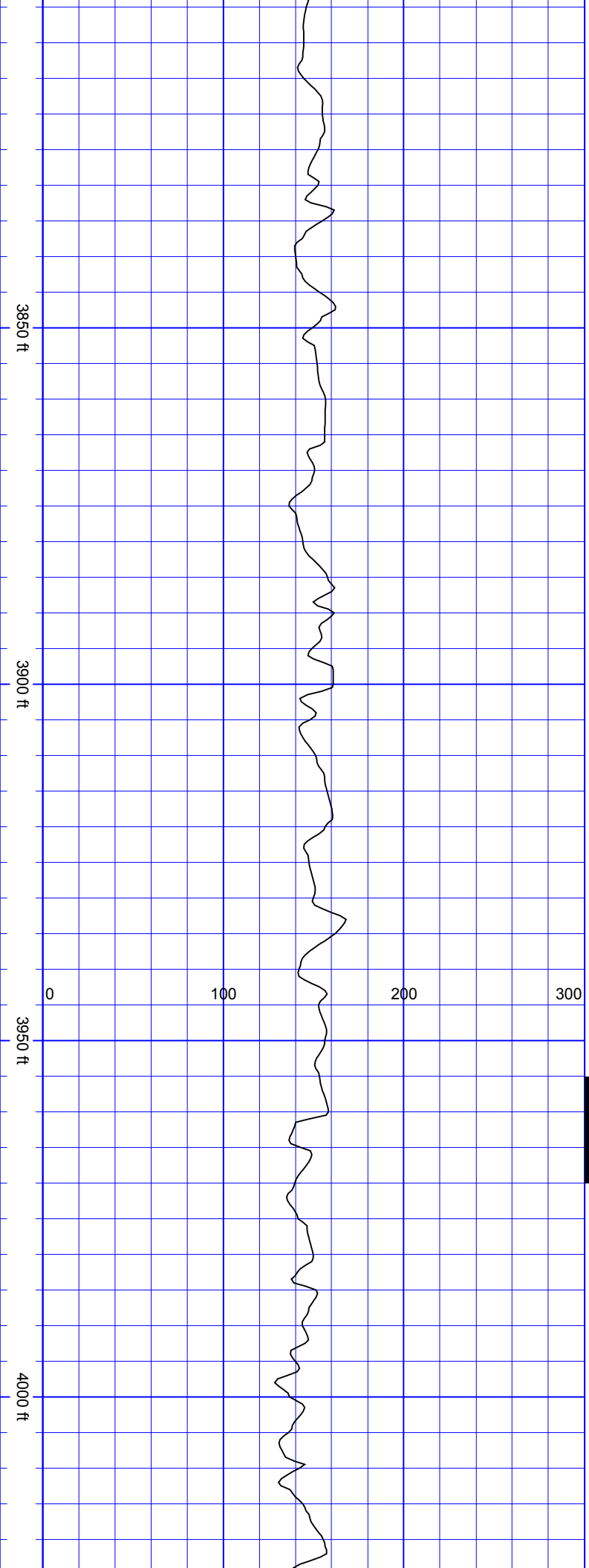
SurveyDepth:3605  
TVD:3598.43 Inc:5.8  
Azi:296.73 VertSec:-128.26

SurveyDepth:3700  
TVD:3692.99 Inc:5.19  
Azi:306.13 VertSec:-136.01

SurveyDepth:3794  
TVD:3786.67 Inc:4.35  
Azi:309.65 VertSec:-142.19



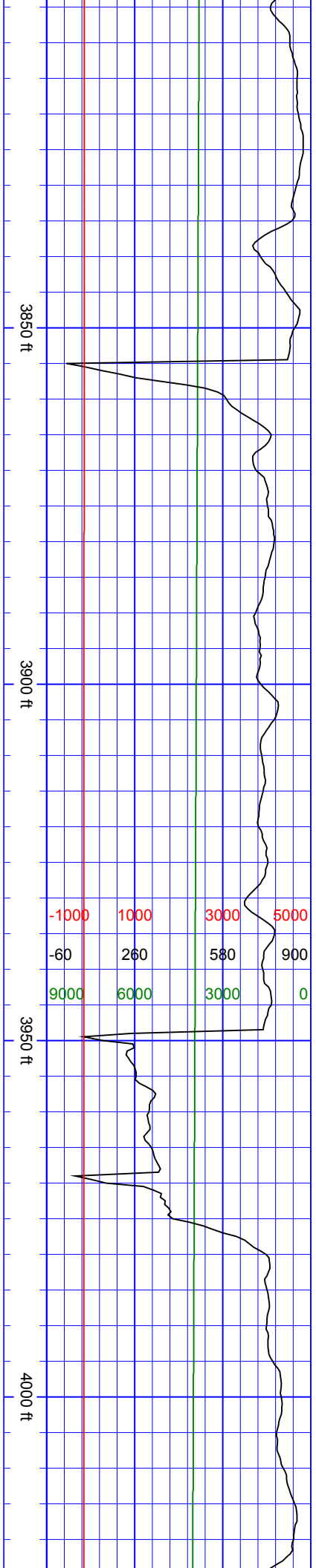


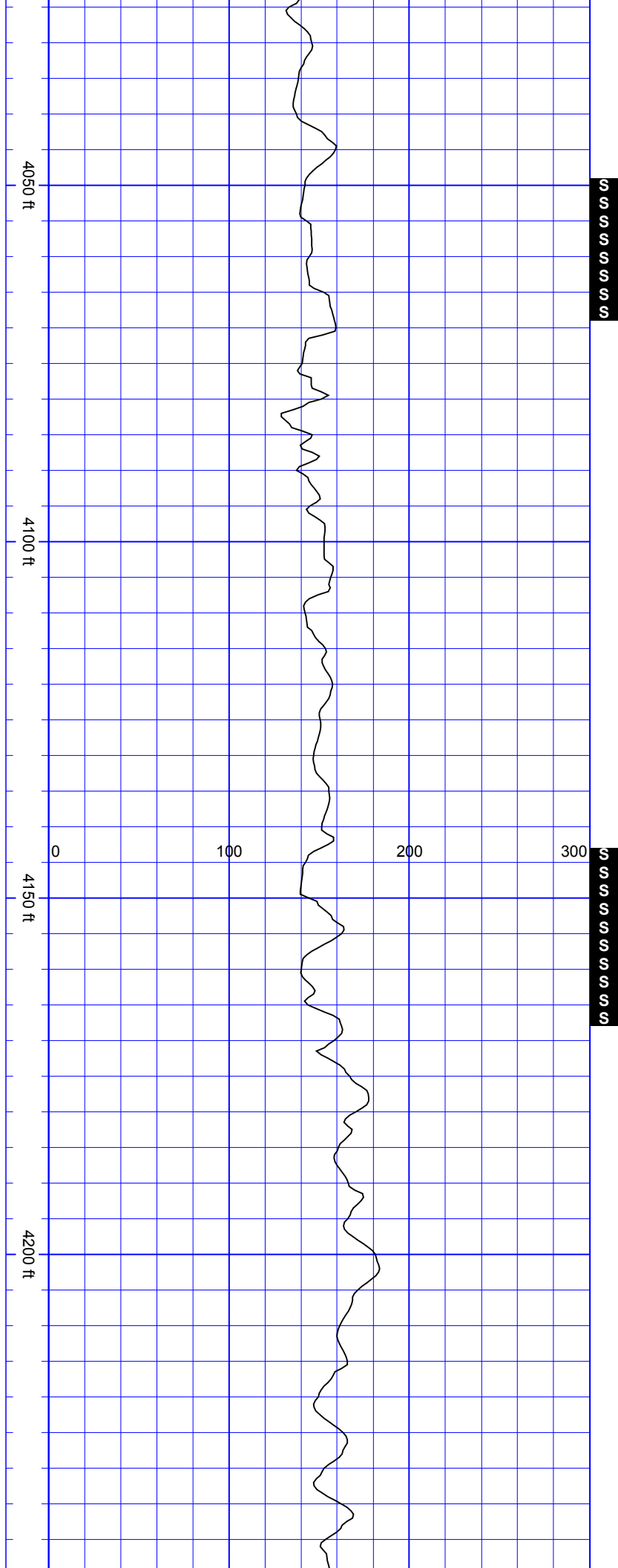


SurveyDepth:3889  
TVD:3881.48 Inc:2.86  
Azi:322.04 VertSec:-  
146.41

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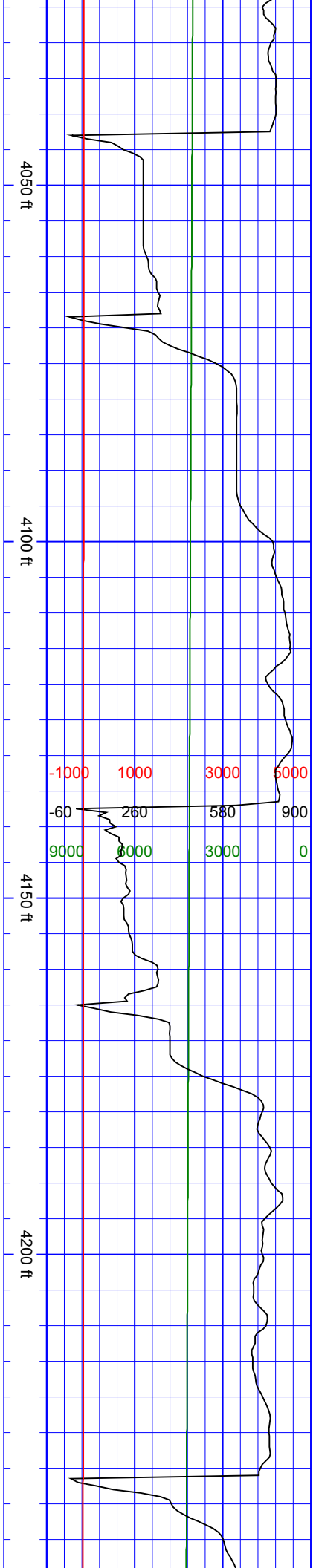
SurveyDepth:3983  
TVD:3975.3 Inc:4.04  
Azi:317.03 VertSec:-  
150.11

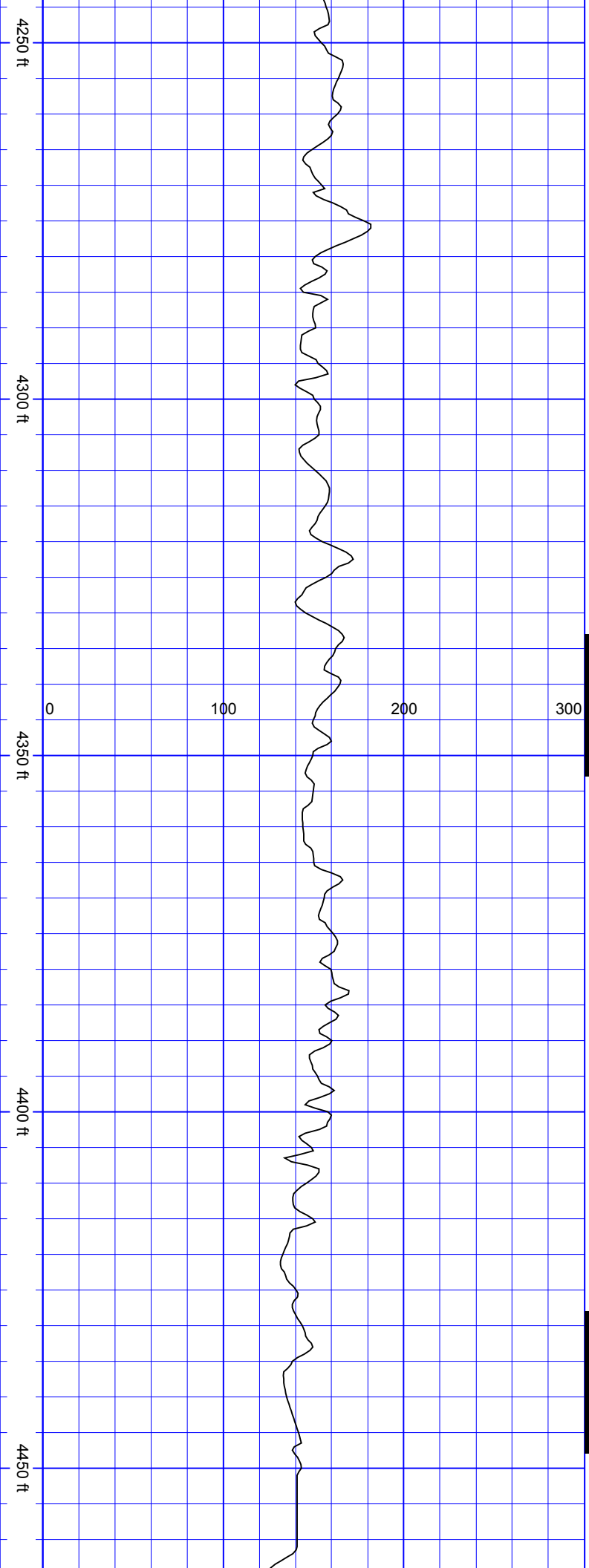




SurveyDepth:4077  
TVD:4069.07 Inc:4.09  
Azi:311.75 VertSec:-  
154.86

SurveyDepth:4172  
TVD:4163.74 Inc:5.58  
Azi:279.94 VertSec:-  
161.93





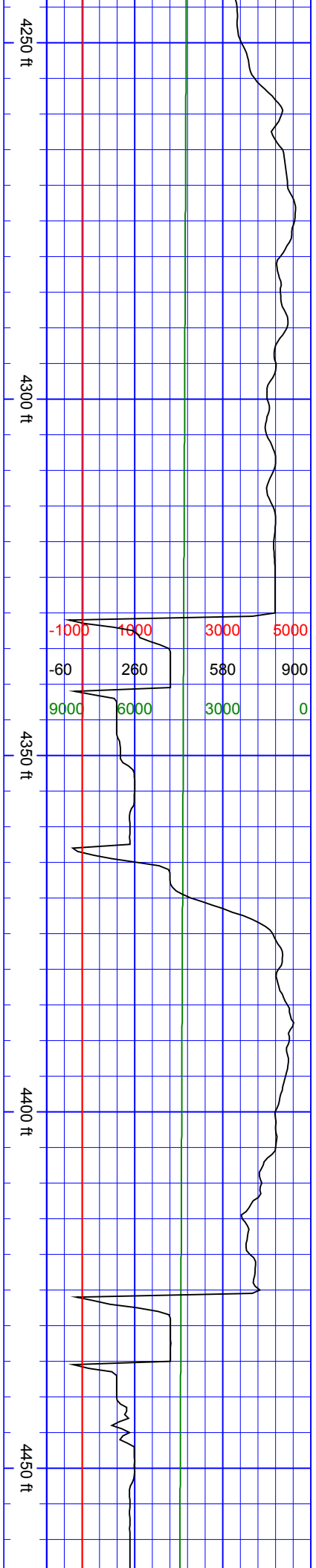
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SurveyDepth:4267  
TVD:4258.31 Inc:5.36  
Azi:274.49 VertSec:-  
170.9

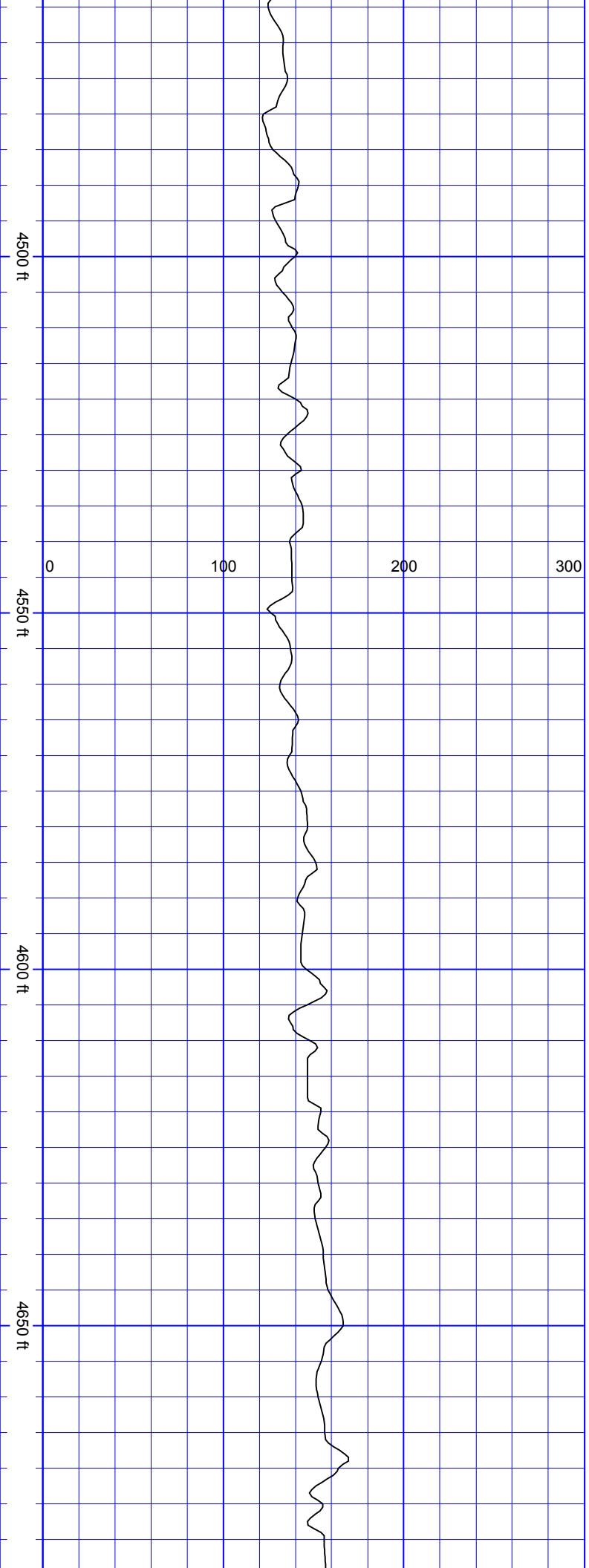
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SurveyDepth:4362  
TVD:4352.84 Inc:6.15  
Azi:291.36 VertSec:-  
180.06

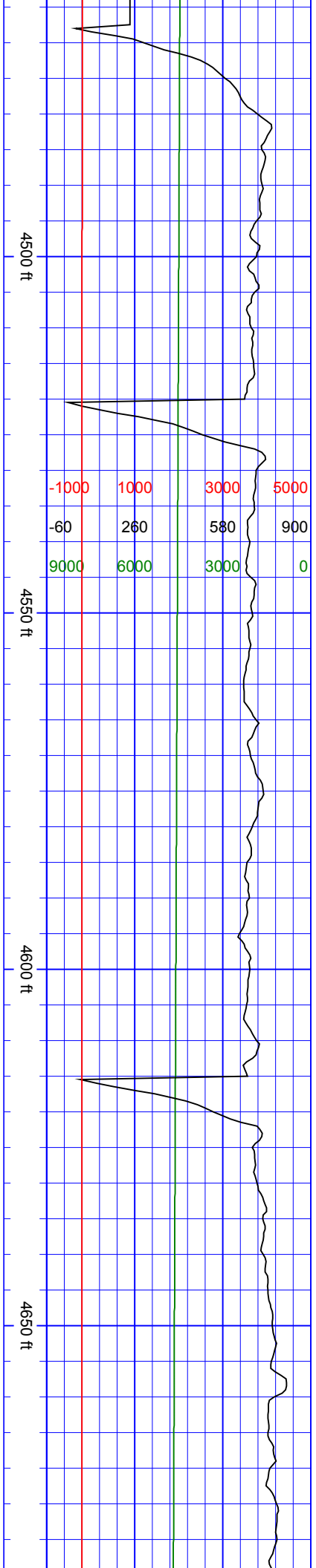
SurveyDepth:4456  
TVD:4446.41 Inc:4.97  
Azi:319.23 VertSec:-

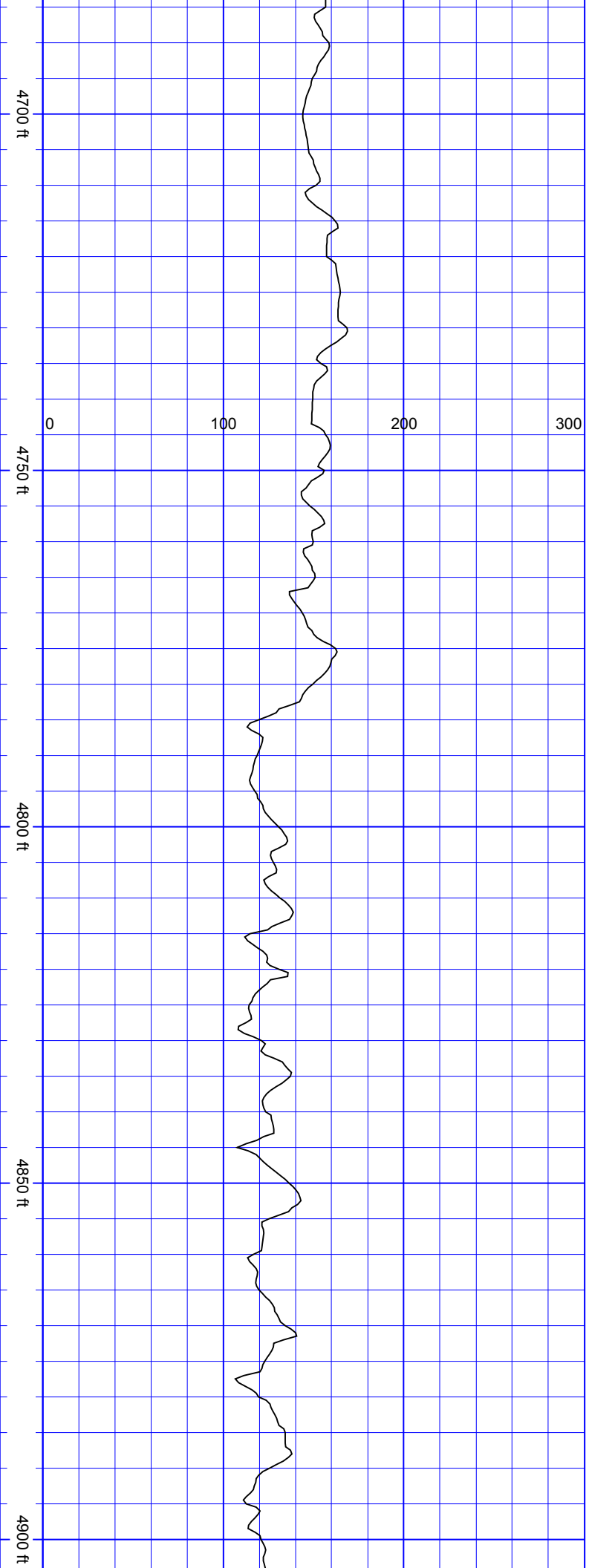


187.41



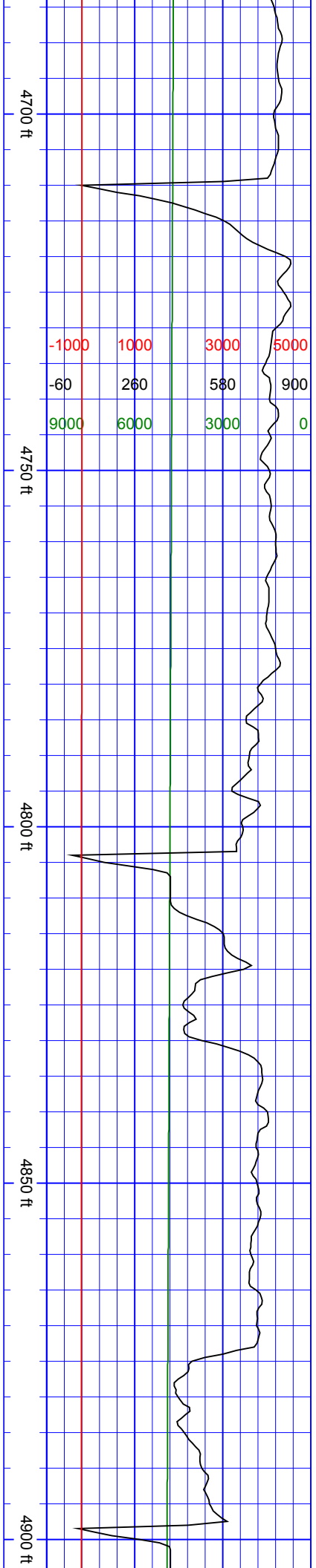
SurveyDepth:4551 TVD:4541.11 Inc:4.26 Azi:333.82 VertSec:-191.64			
SurveyDepth:4645 TVD:4634.88 Inc:3.78 Azi:329.51 VertSec:-194.75			

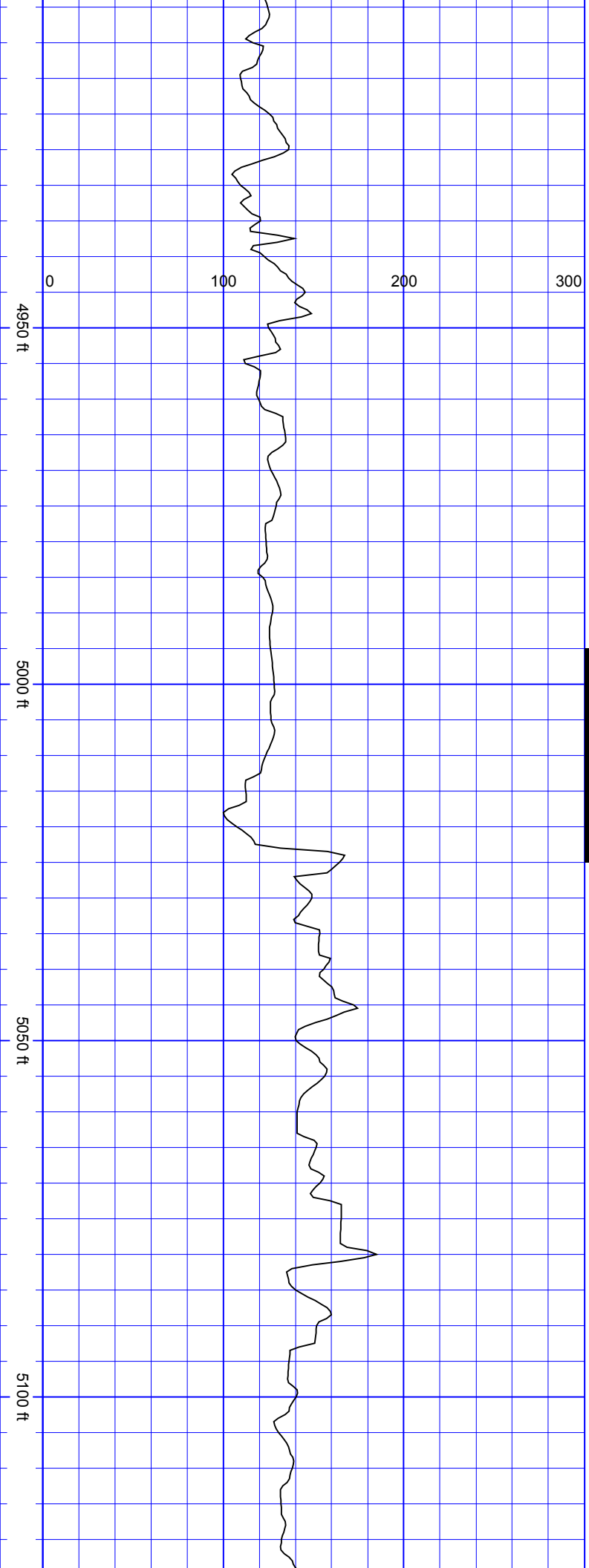




SurveyDepth:4740  
TVD:4729.68 Inc:3.6  
Azi:321.69 VertSec:-  
198.18

SurveyDepth:4834  
TVD:4823.49 Inc:3.6  
Azi:316.06 VertSec:-  
202.05

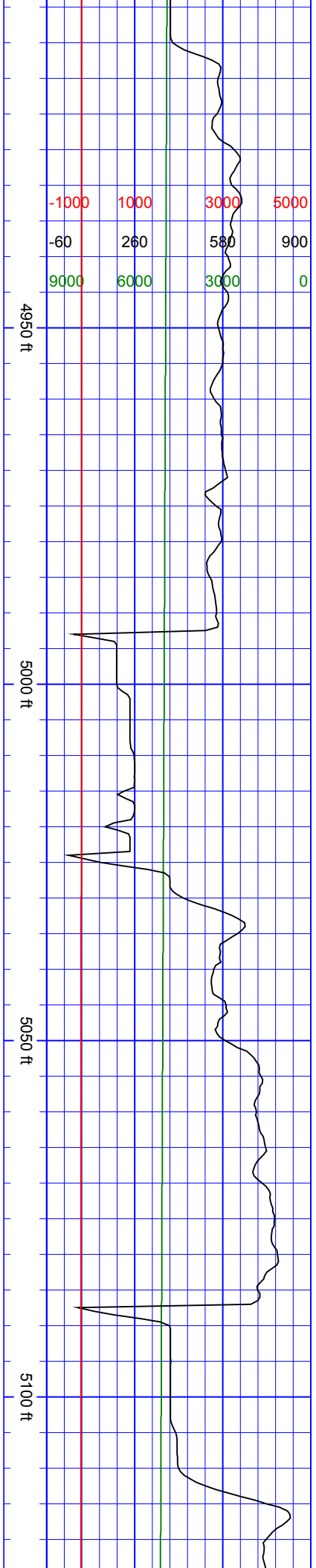
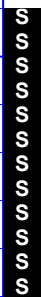




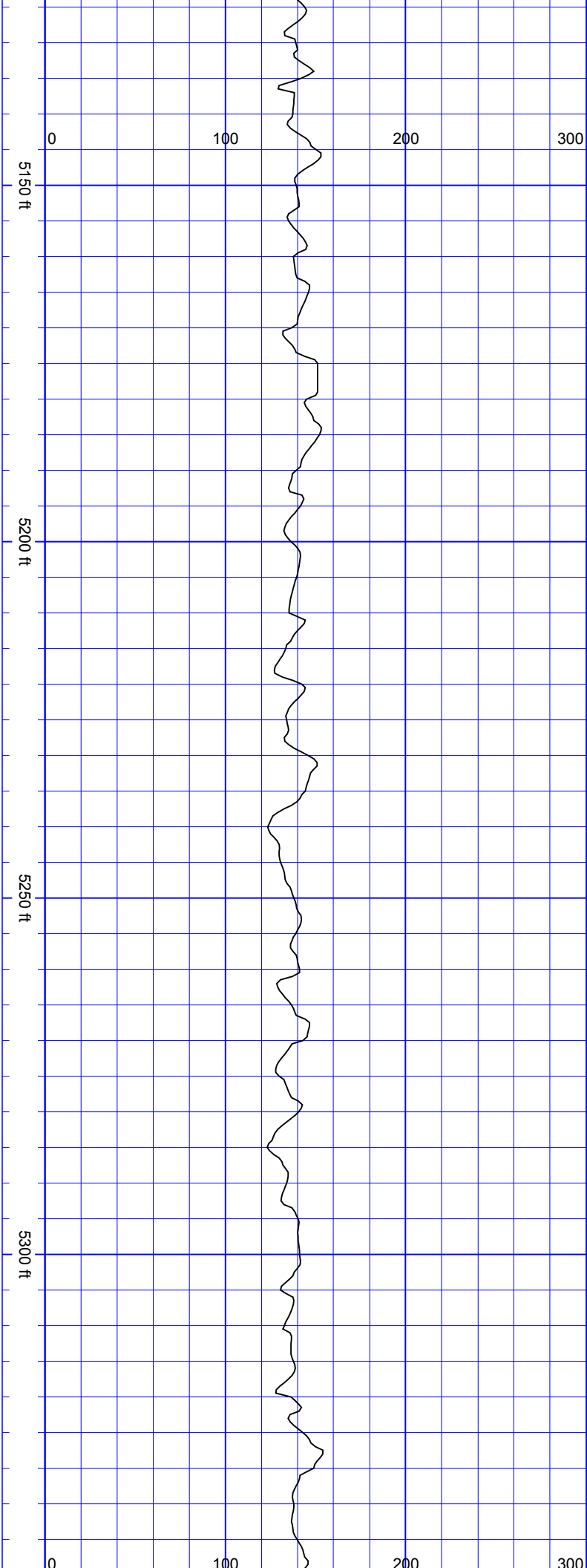
SurveyDepth:4929  
TVD:4918.32 Inc:3.38  
Azi:309.38 VertSec:-  
206.28

SurveyDepth:5023  
TVD:5012.15 Inc:3.56  
Azi:314.13 VertSec:-  
210.51

SurveyDepth:5119  
TVD:5107.96 Inc:3.65



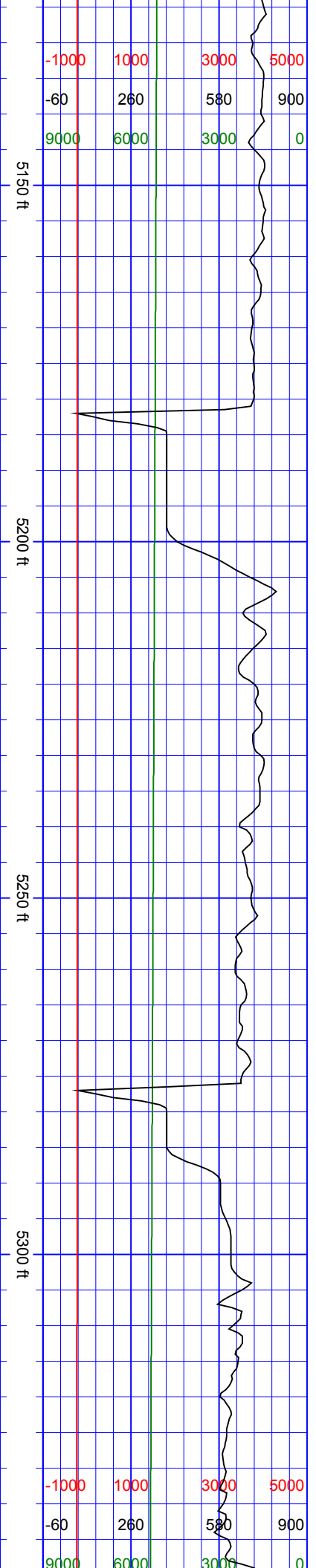
-1000	1000	3000	5000
-60	260	580	900
9000	6000	3000	0

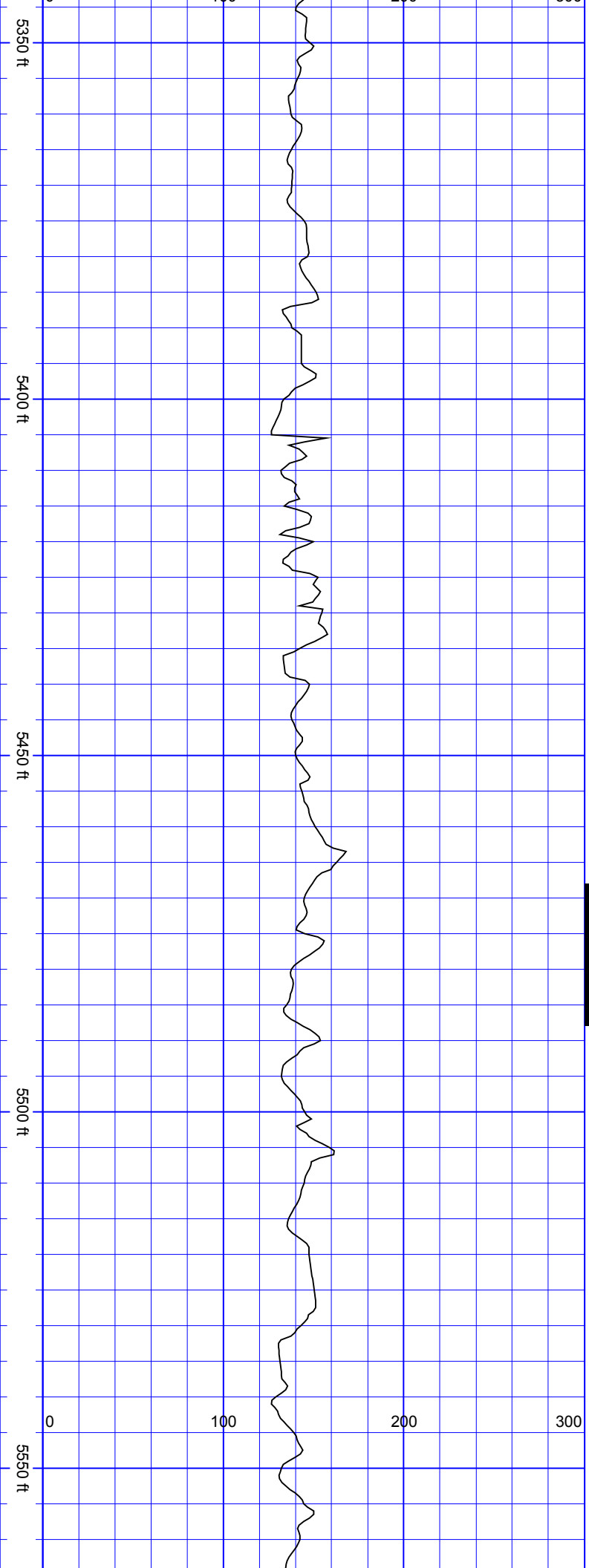


Azi:317.47 VertSec:-  
214.71

SurveyDepth:5213  
TVD:5201.78 Inc:3.47  
Azi:323.53 VertSec:-  
218.41

SurveyDepth:5308  
TVD:5296.62 Inc:3.16  
Azi:326.34 VertSec:-  
221.57

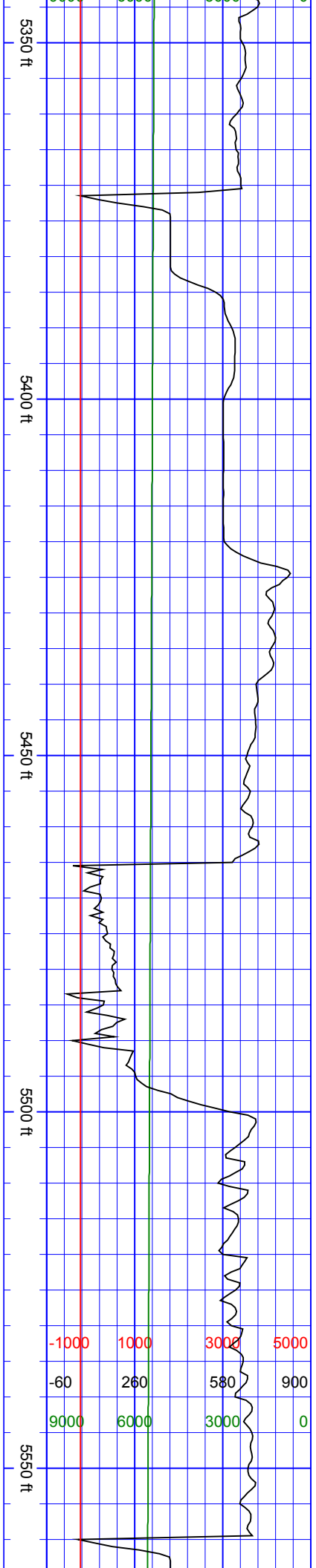




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SurveyDepth:5402  
TVD:5390.51 Inc:2.29  
Azi:321.95 VertSec:-  
224.16

SurveyDepth:5497  
TVD:5485.39 Inc:3.34  
Azi:313.34 VertSec:-  
227.33





5600 ft

5650 ft

5700 ft

5750 ft

0 100 200 300

SurveyDepth:5591  
TVD:5579.27 Inc:2.55  
Azi:302.97 VertSec:-  
231.08

SurveyDepth:5685  
TVD:5673.11 Inc:4.04  
Azi:320.46 VertSec:-  
234.93

SurveyDepth:5780  
TVD:5767.94 Inc:2.94

5600 ft

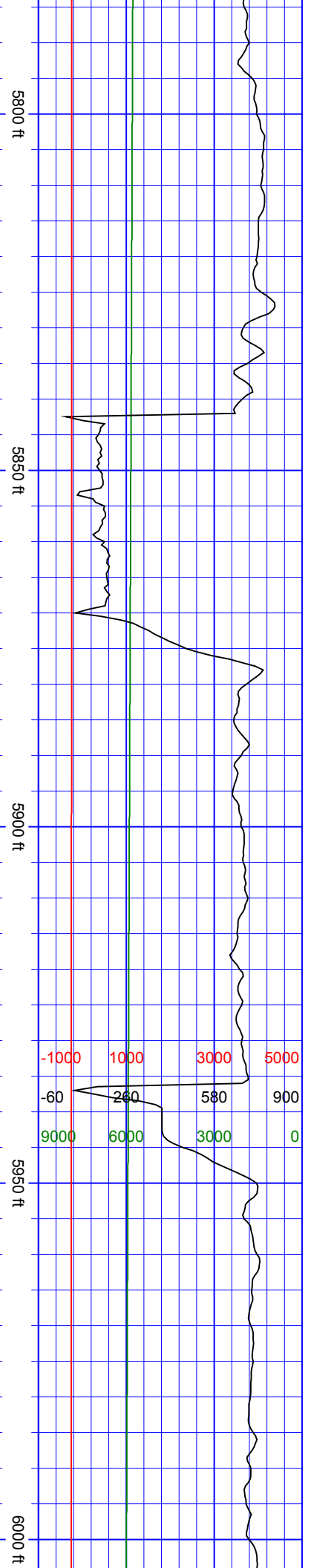
5650 ft

5700 ft

5750 ft

-1000 1000 3000 5000  
-60 260 580 900  
9000 6000 3000 0

SurveyDepth:5969  
TVD:5956.61 Inc:3.21  
Azi:306.48 VertSec:-  
246.59









6700 ft

6750 ft

6800 ft

6850 ft

0 100 200 300

SurveyDepth:6726  
TVD:6711.46 Inc:11.65  
Azi:19.96 VertSec:-  
266.21

SurveyDepth:6820  
TVD:6802.7 Inc:16.88  
Azi:56.78 VertSec:-251.5

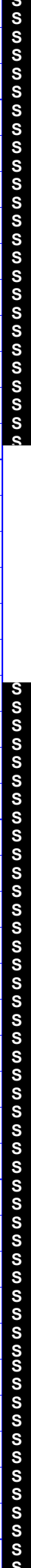
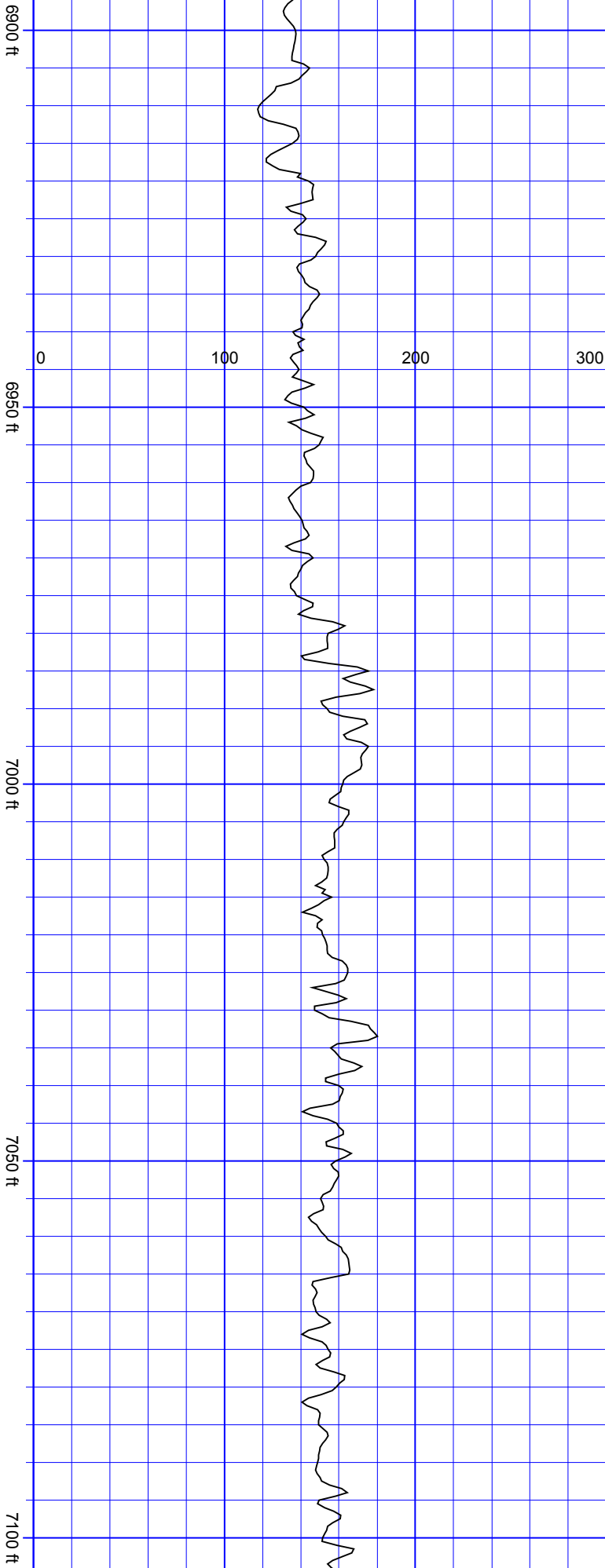
6700 ft

6750 ft

6800 ft

6850 ft

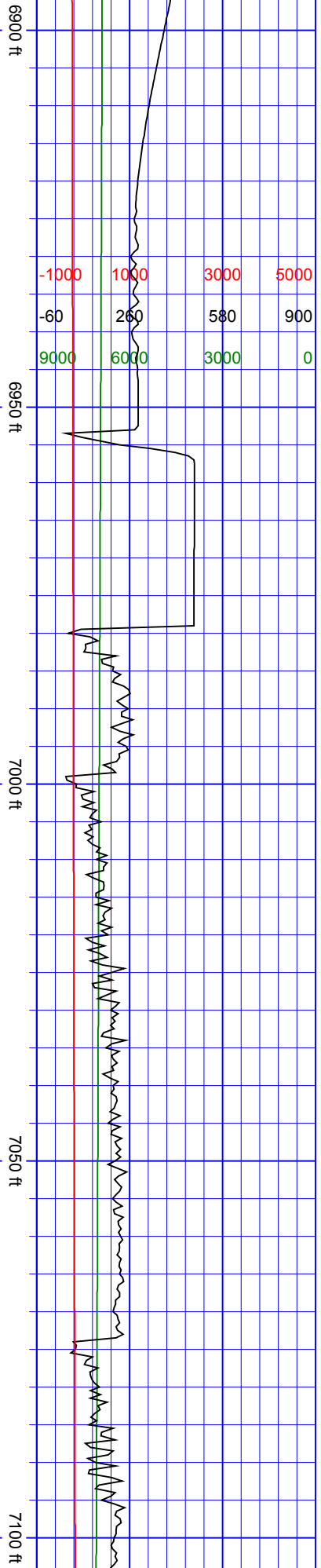
-1000	1000	3000	5000
-60	260	580	900
9000	6000	3000	0



SurveyDepth:6915  
TVD:6893.92 Inc:15.73  
Azi:71.02 VertSec:-227.75

SurveyDepth:7009  
TVD:6983.86 Inc:18.19  
Azi:85 VertSec:-201.07

SurveyDepth:7103



SurveyDepth:7103  
TVD:7070.75 Inc:26.46  
Azi:78.32 VertSec:-  
165.87

SurveyDepth:7198  
TVD:7151.7 Inc:36.48  
Azi:84.21 VertSec:-116.9

SurveyDepth:7293  
TVD:7222.03 Inc:47.81  
Azi:88.51 VertSec:-53.39

0 100 200 300

7150 ft

7200 ft

7250 ft

7300 ft

-1000 -500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000  
-60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100  
9000 8000 7000 6000 5000 4000 3000 2000 1000 0

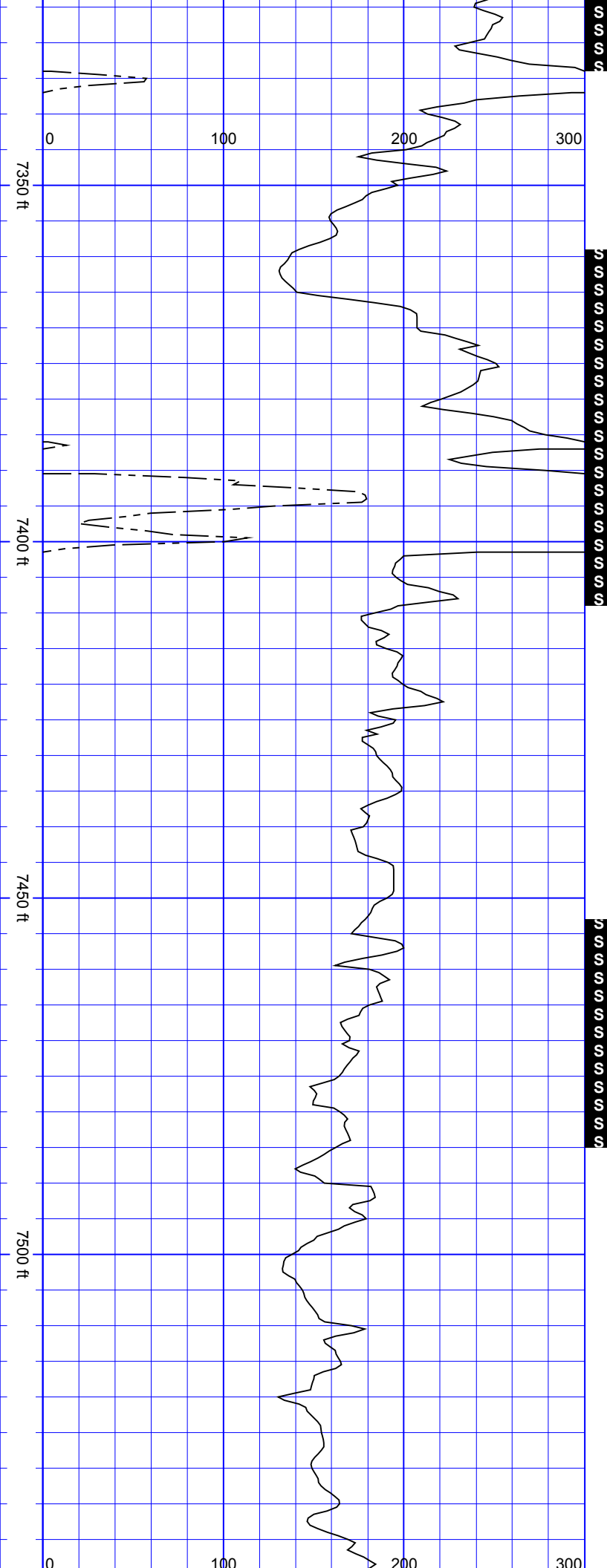
7150 ft

7200 ft

7250 ft

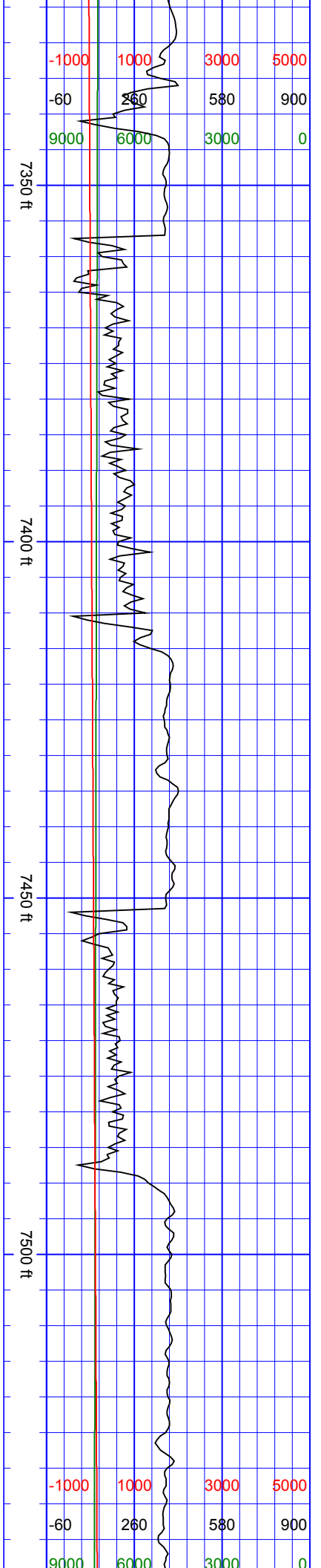
7300 ft

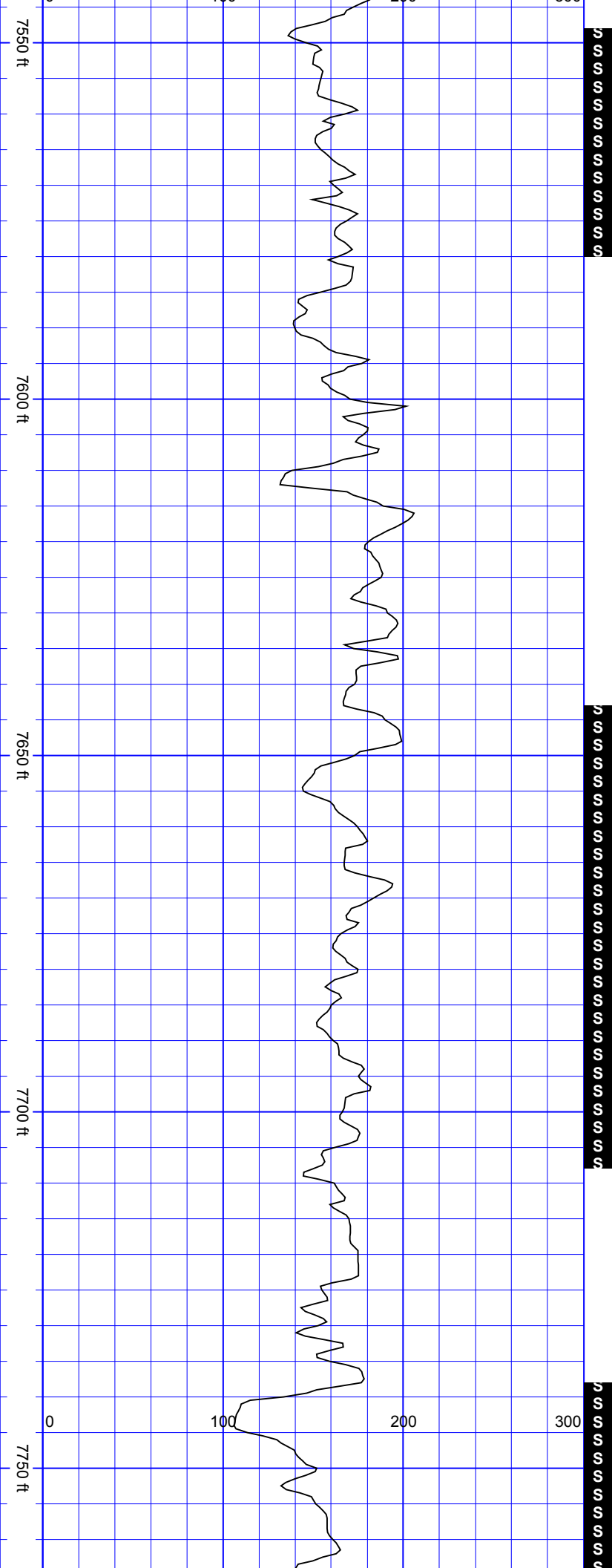




SurveyDepth:7387  
TVD:7279.5 Inc:56.73  
Azi:90.53 VertSec:20.87

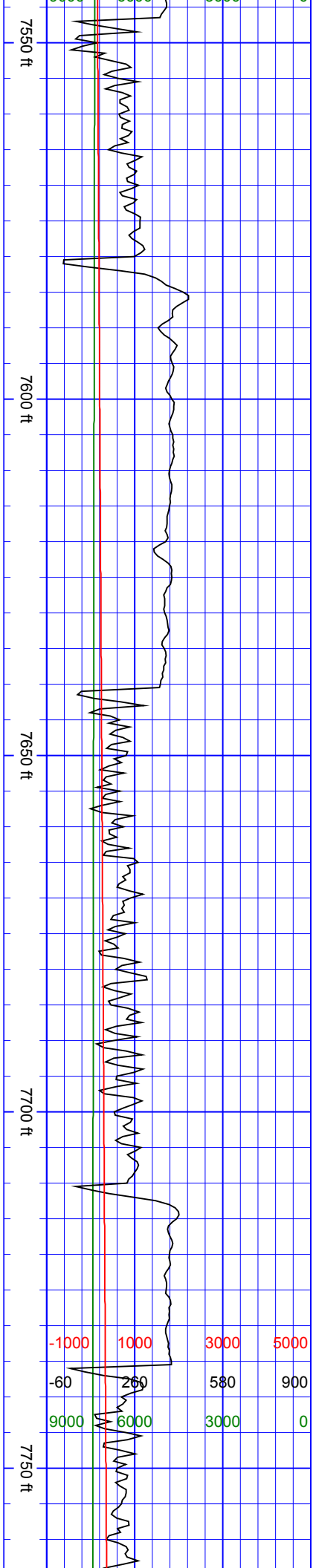
SurveyDepth:7482  
TVD:7327.41 Inc:62.67  
Azi:91.24  
VertSec:102.84

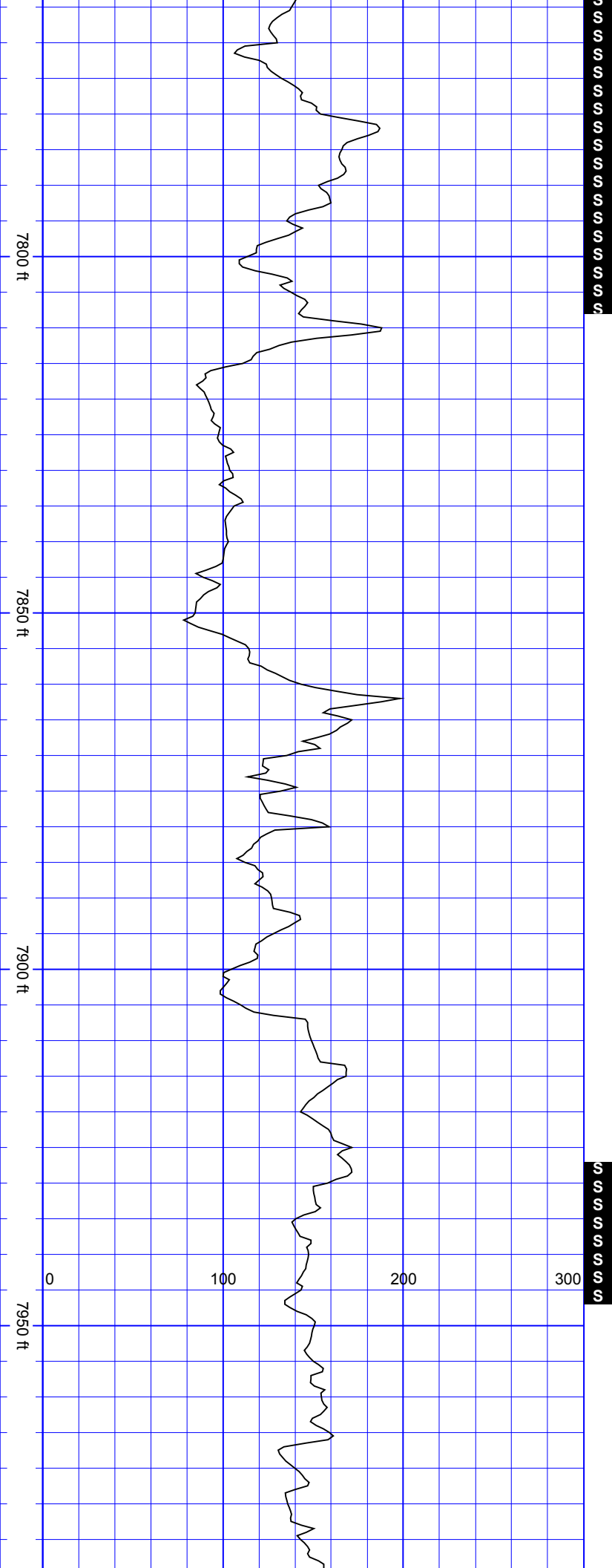




SurveyDepth:7577  
TVD:7368.68 Inc:65.83  
Azi:91.5 VertSec:188.37

SurveyDepth:7672  
TVD:7403.6 Inc:71.02  
Azi:91.59  
VertSec:276.65

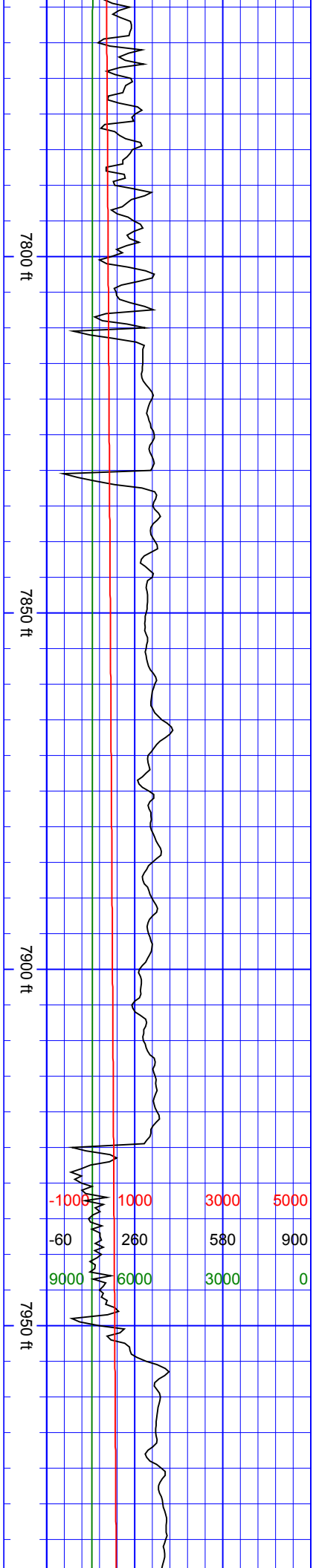




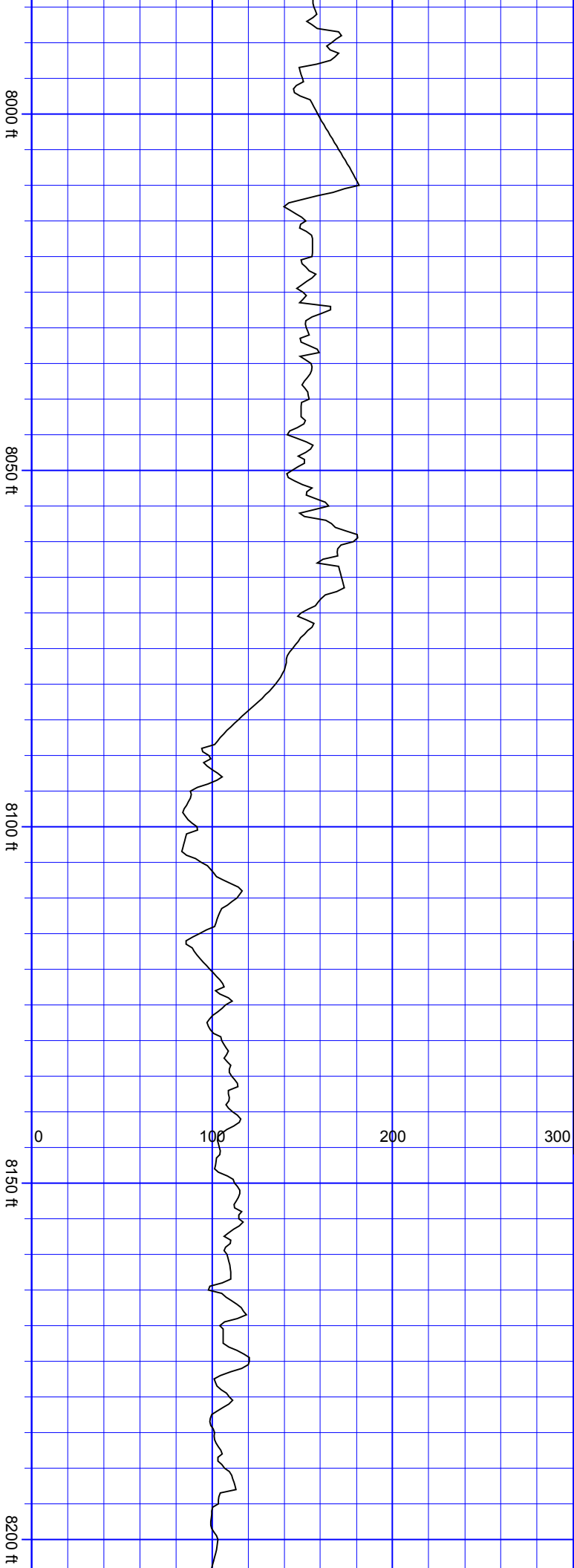
SurveyDepth:7766  
TVD:7427.22 Inc:79.85  
Azi:90.8 VertSec:367.51

SurveyDepth:7861  
TVD:7438.99 Inc:85.91  
Azi:90.01  
VertSec:461.73

SurveyDepth:7955  
TVD:7444.36 Inc:87.54  
Azi:89.83  
VertSec:555.58

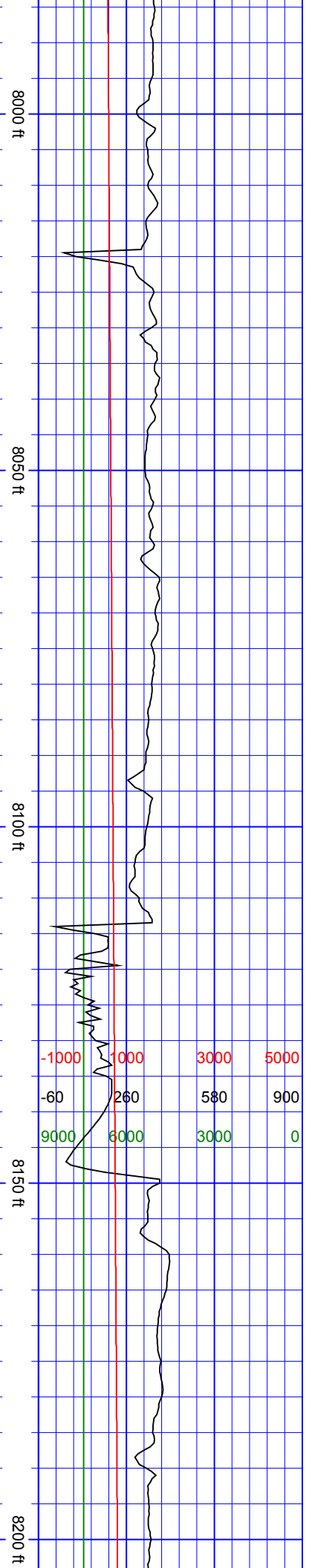


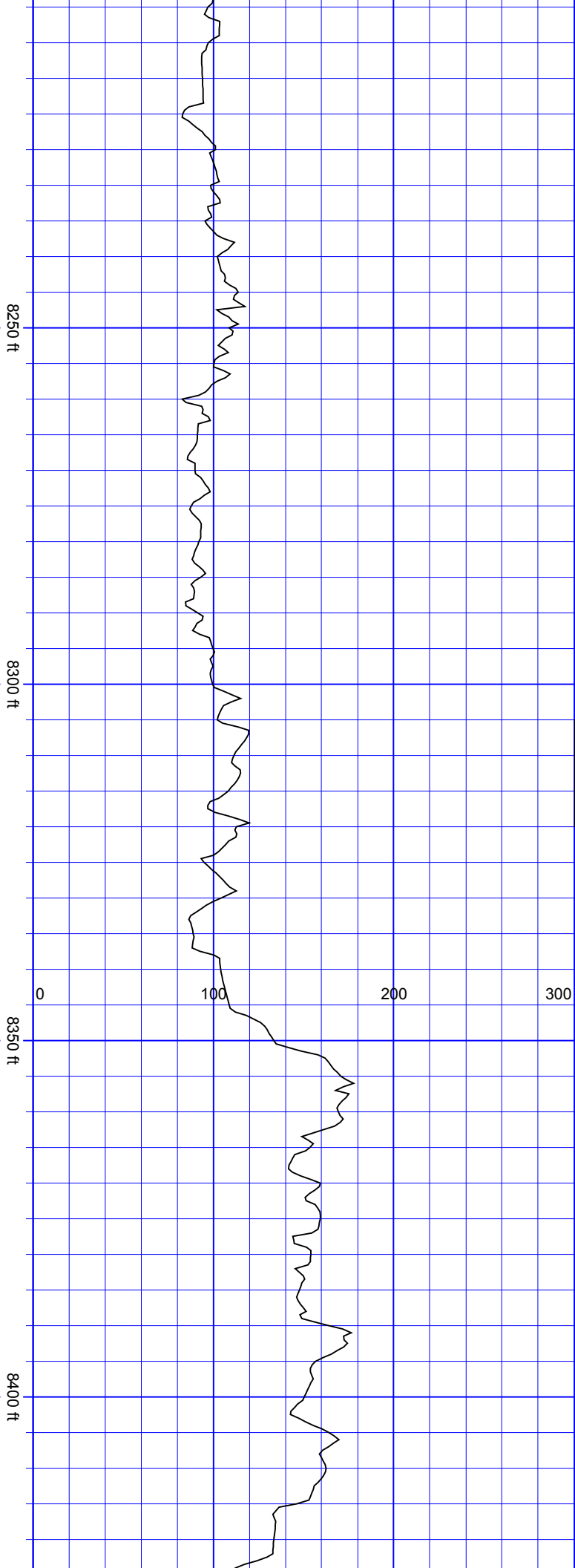
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9000	6000	3000	0



SurveyDepth:8050  
TVD:7449.05 Inc:86.79  
Azi:88.95  
VertSec:650.45

SurveyDepth:8144  
TVD:7452.15 Inc:89.43  
Azi:89.92  
VertSec:744.39

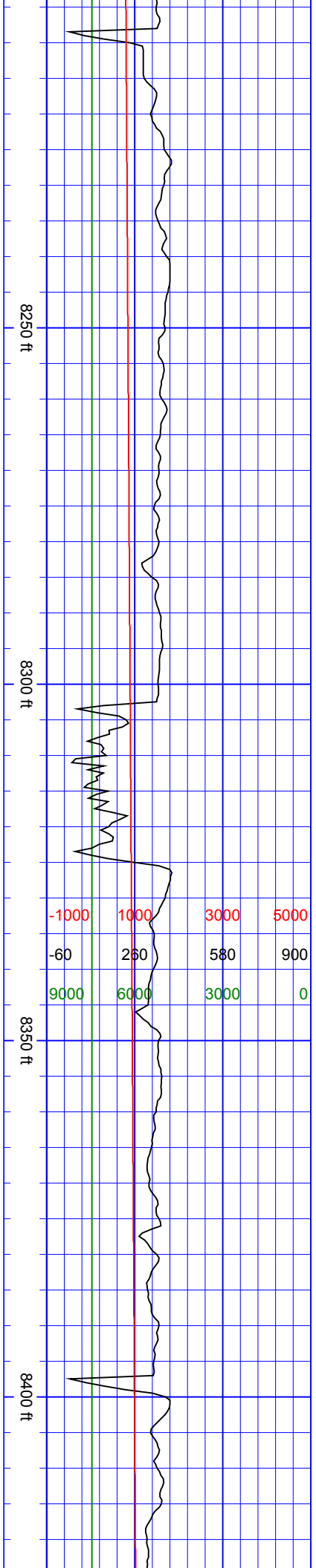


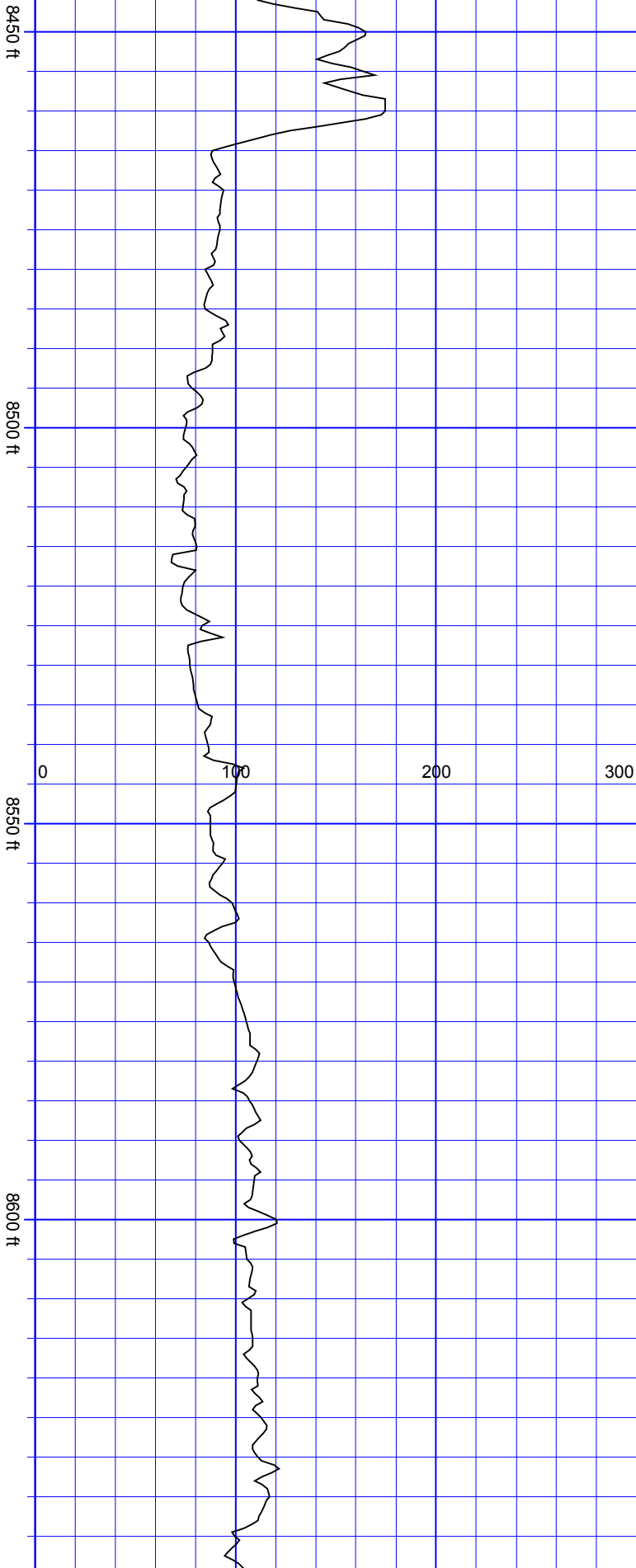


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SurveyDepth:8239  
TVD:7453.07 Inc:89.47  
Azi:89.74  
VertSec:839.39

SurveyDepth:8333  
TVD:7451.84 Inc:92.02  
Azi:90.62  
VertSec:933.37

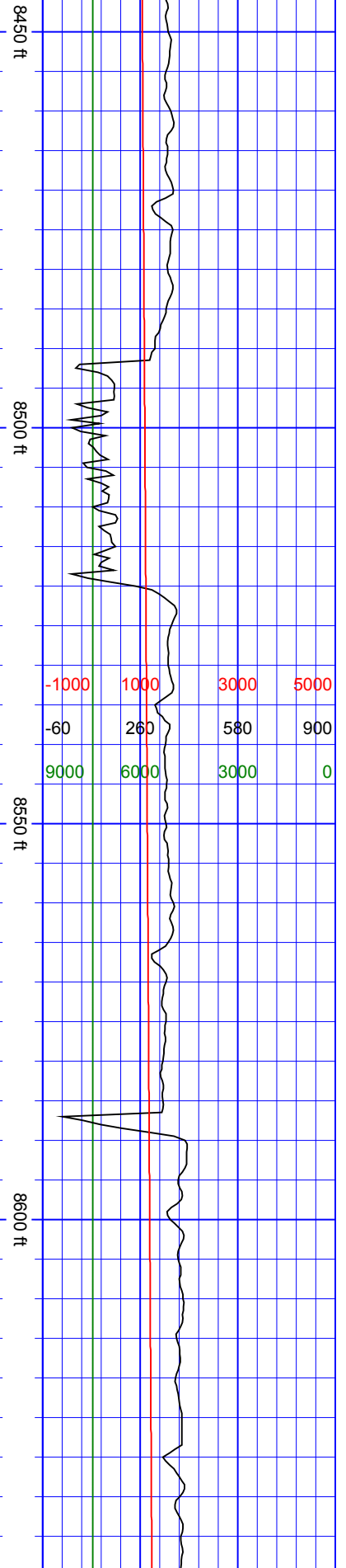


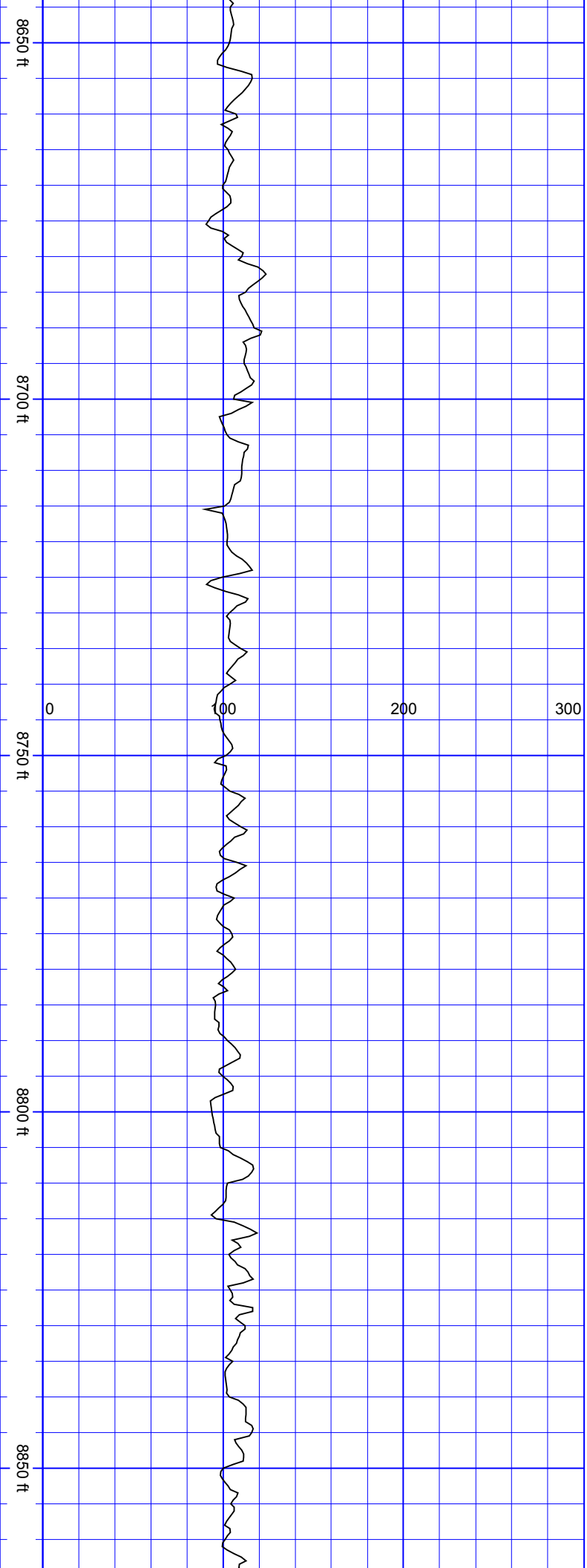


SurveyDepth:8428  
TVD:7447.8 Inc:92.86  
Azi:90.18  
VertSec:1028.28

SurveyDepth:8522  
TVD:7444.99 Inc:90.57  
Azi:90.89  
VertSec:1122.22

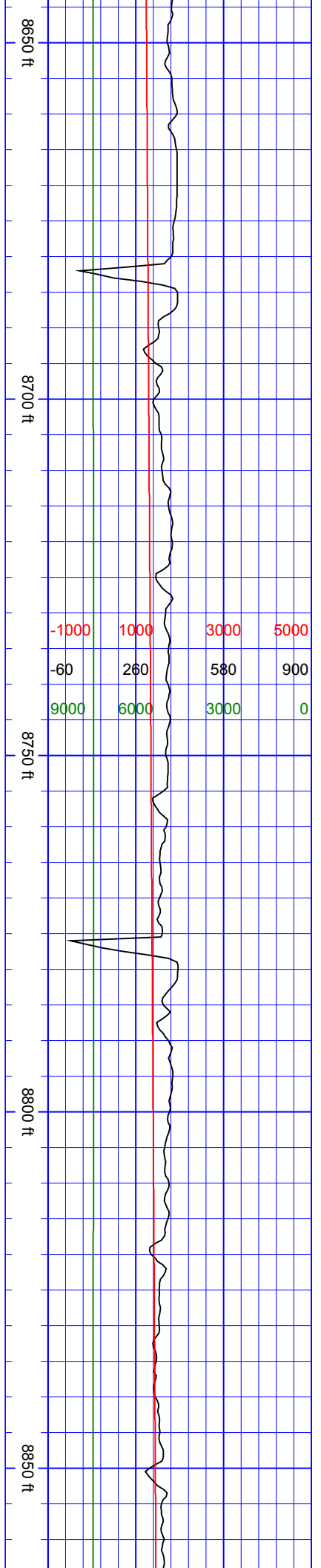
SurveyDepth:8616  
TVD:7444.16 Inc:90.44  
Azi:90.36  
VertSec:1216.21





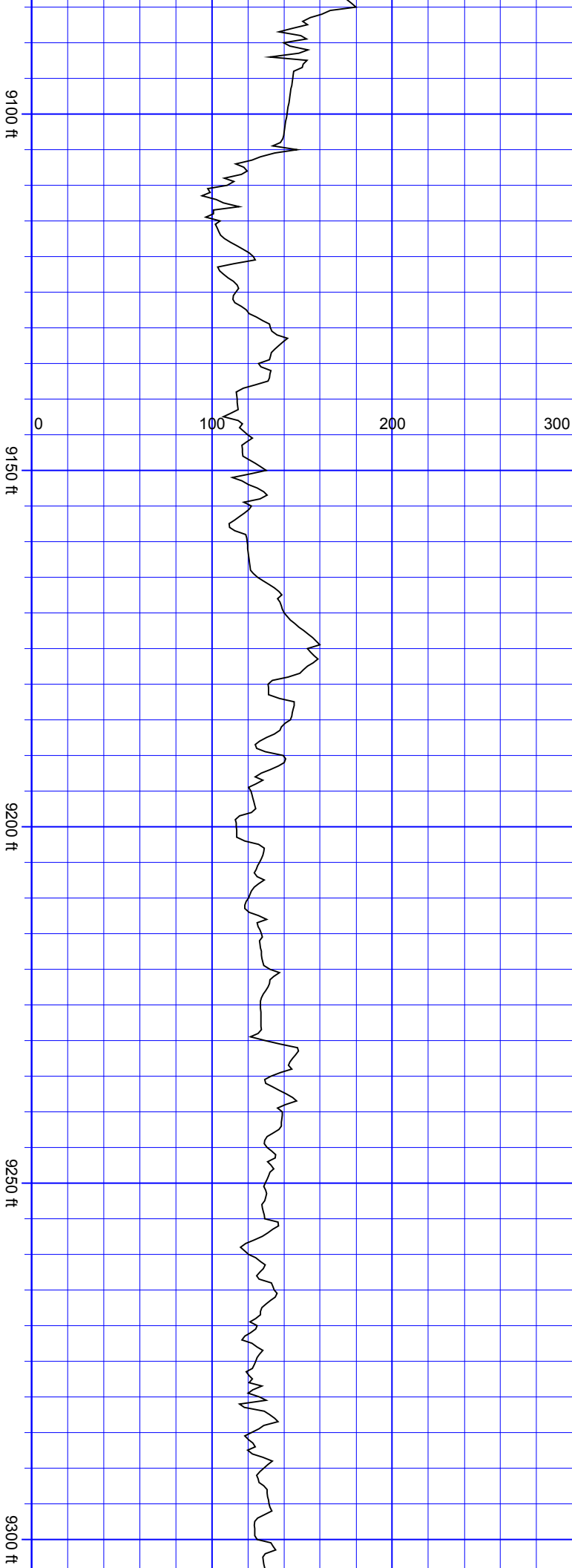
SurveyDepth:8711  
TVD:7443.17 Inc:90.75  
Azi:90.01  
VertSec:1311.21

SurveyDepth:8805  
TVD:7443.2 Inc:89.21  
Azi:87.81  
VertSec:1405.18







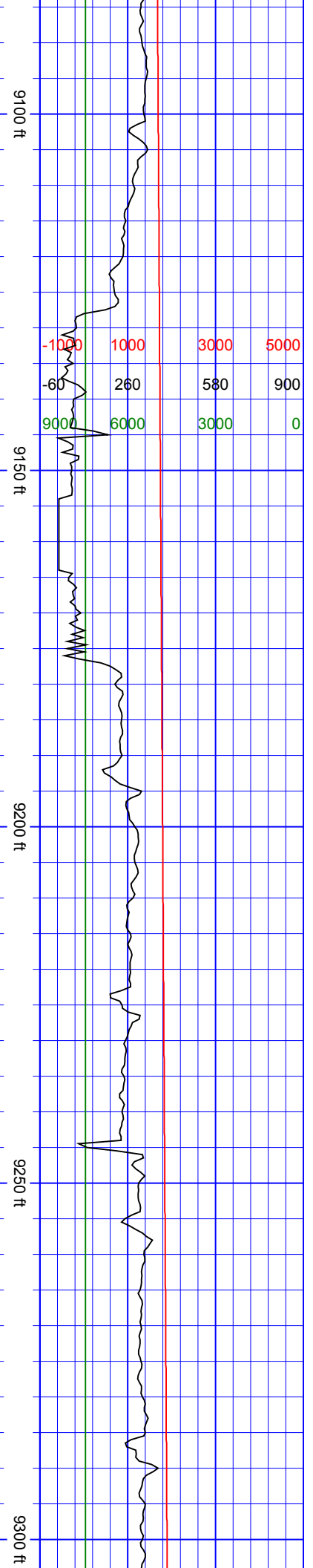


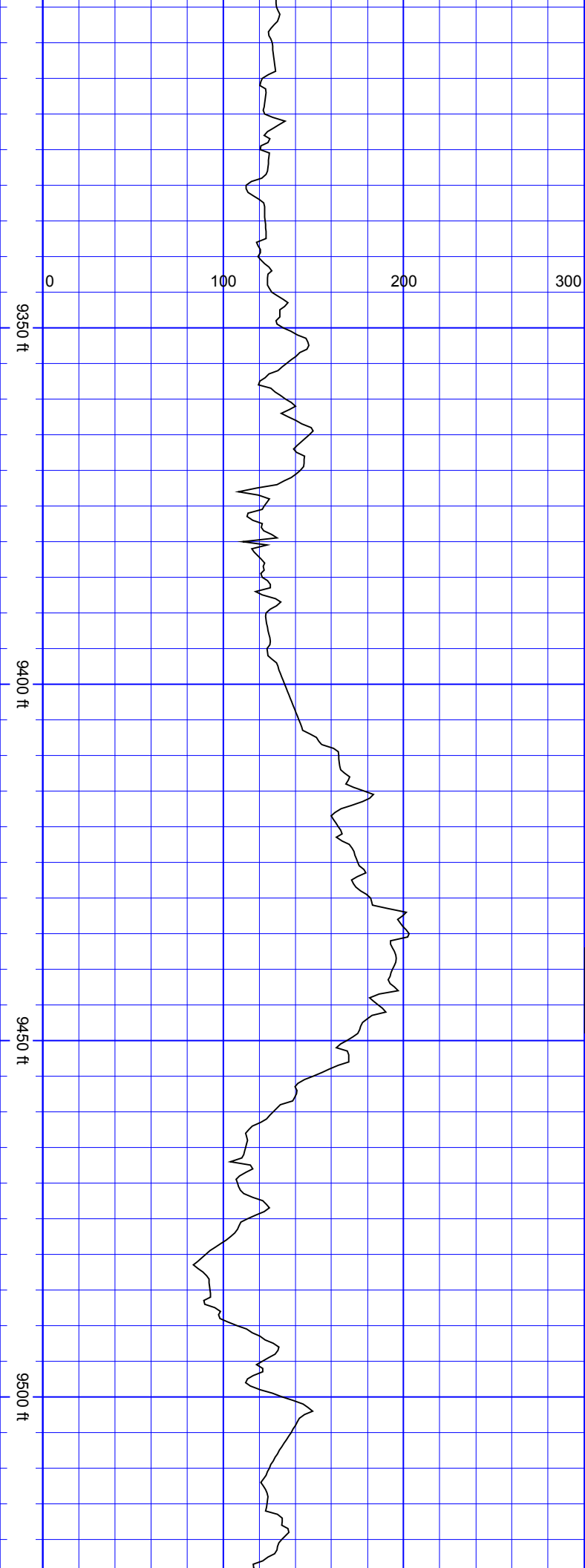
SurveyDepth:9090  
TVD:7440.87 Inc:91.23  
Azi:90.8  
VertSec:1690.08

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SurveyDepth:9185  
TVD:7440 Inc:89.82  
Azi:92.03  
VertSec:1785.04

SurveyDepth:9279  
TVD:7440.72 Inc:89.3  
Azi:91.06 VertSec:1879

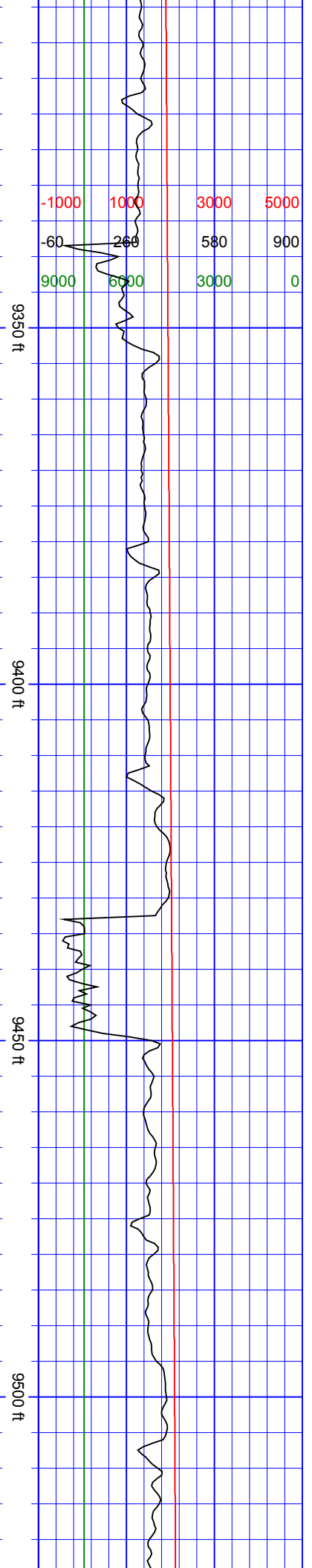


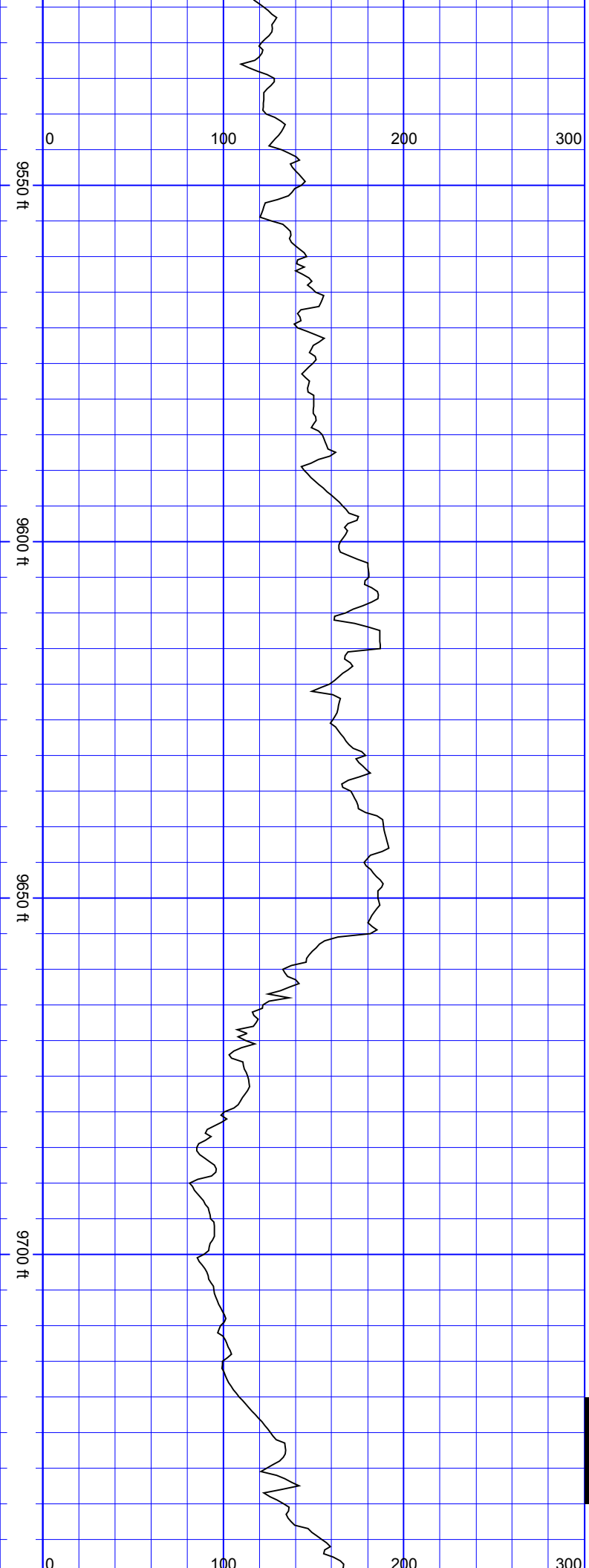


SurveyDepth:9374  
TVD:7441.3 Inc:90  
Azi:89.66  
VertSec:1973.99

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SurveyDepth:9469  
TVD:7442.03 Inc:89.12  
Azi:90.71  
VertSec:2068.99

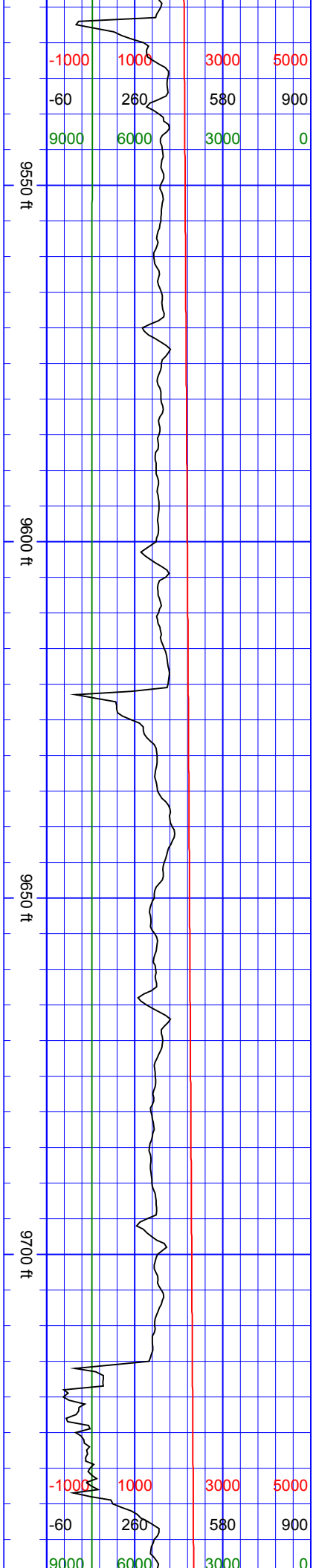


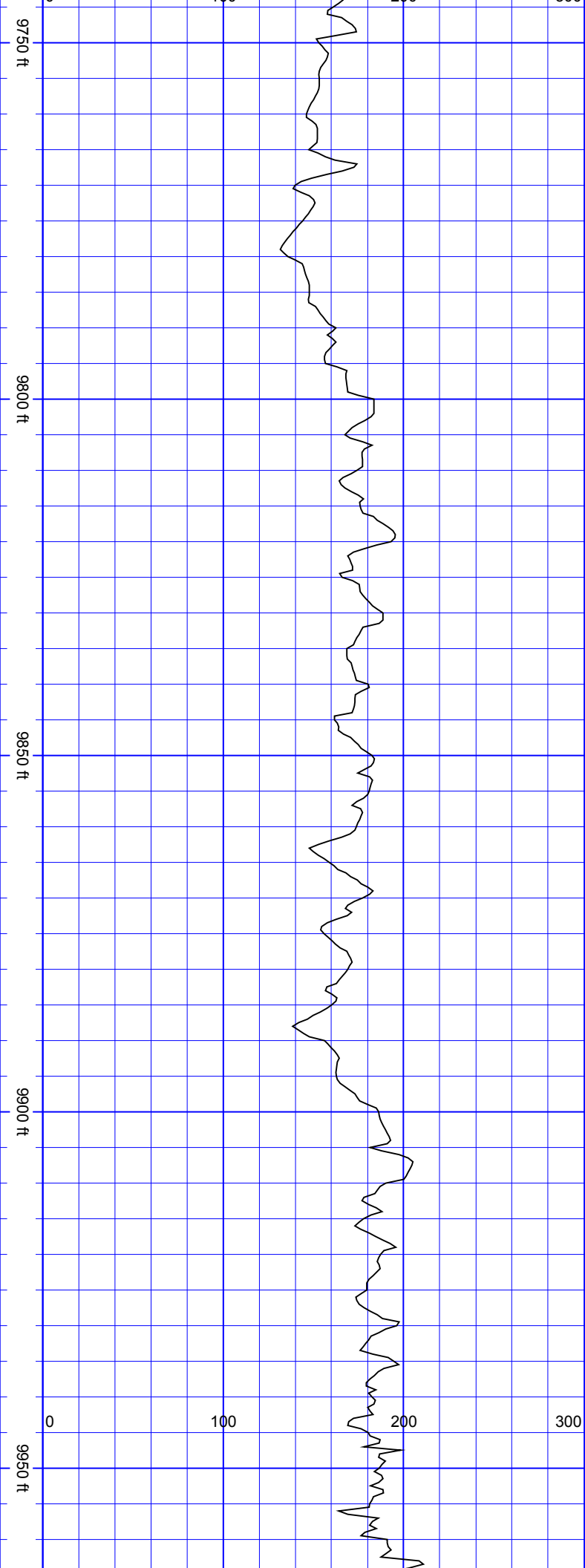


SurveyDepth:9563  
TVD:7443.4 Inc:89.21  
Azi:89.13  
VertSec:2162.97

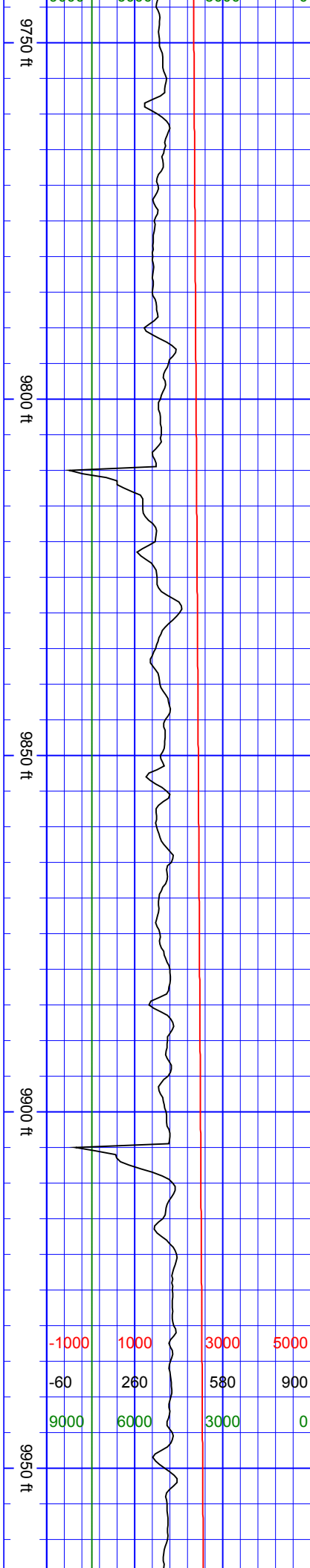
SurveyDepth:9657  
TVD:7444.01 Inc:90.04  
Azi:88.69  
VertSec:2256.96

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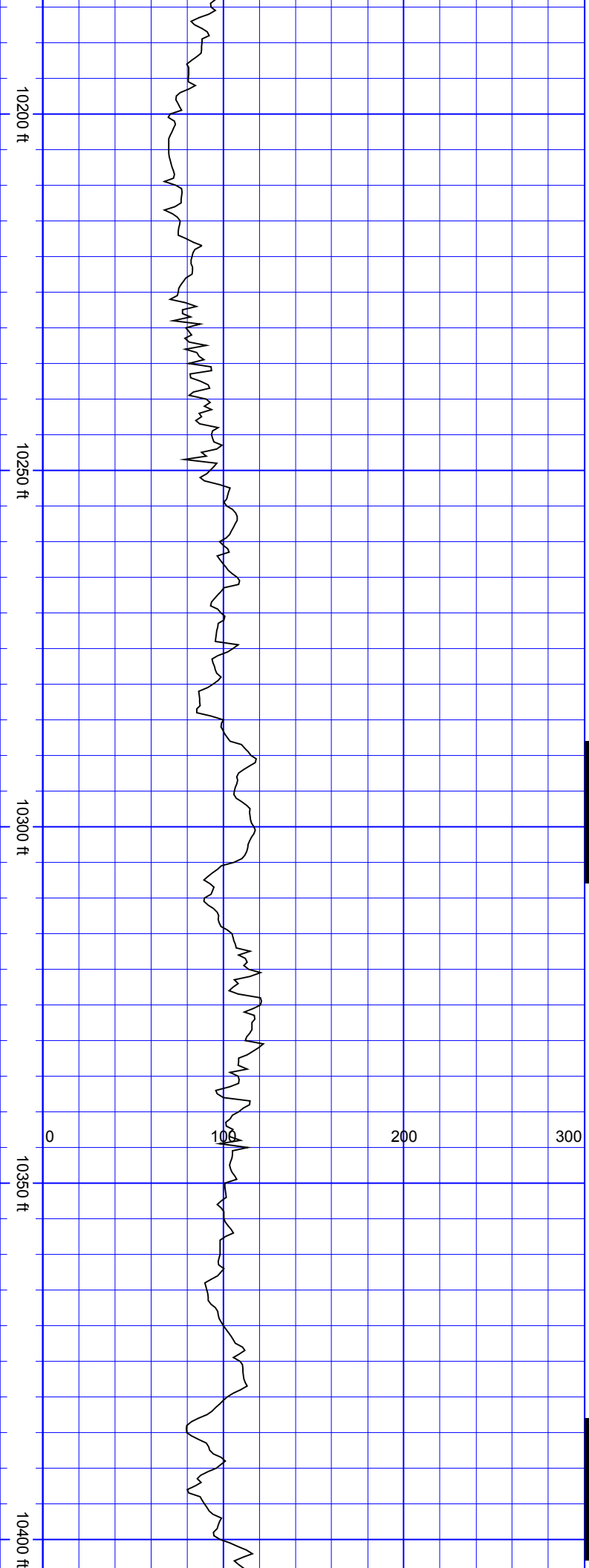




SurveyDepth:9752 TVD:7444.42 Inc:89.47 Azi:89.66 VertSec:2351.95			
SurveyDepth:9846 TVD:7444.93 Inc:89.91 Azi:88.69 VertSec:2445.94			
SurveyDepth:9941 TVD:7444.49 Inc:90.62 Azi:87.99 VertSec:2540.9			





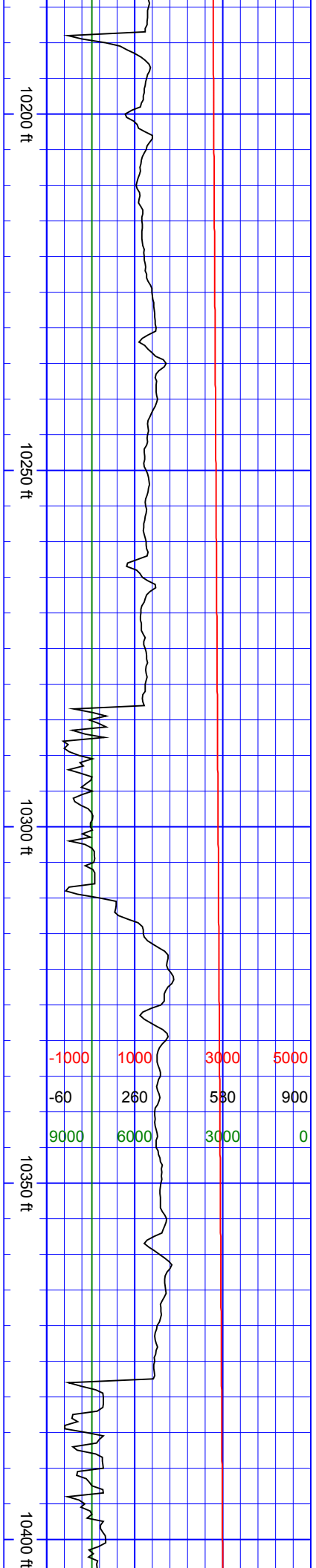


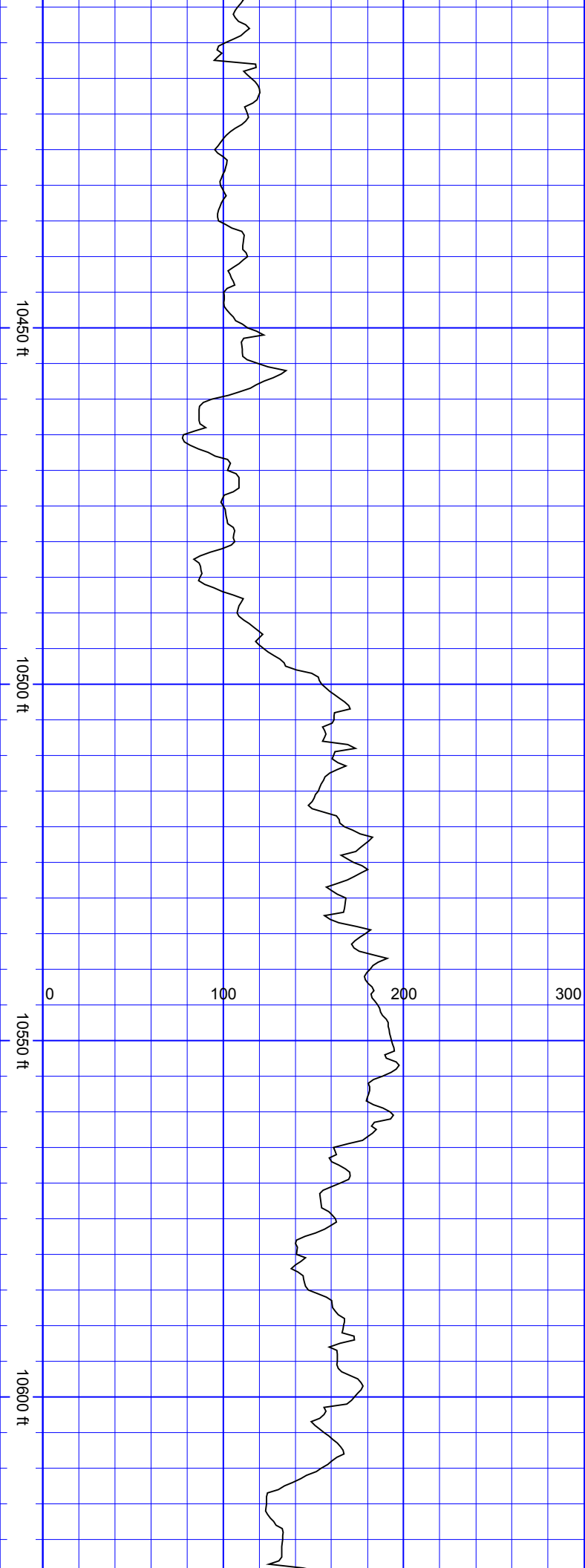
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SurveyDepth:10225  
TVD:7447.42 Inc:89.34  
Azi:87.9 VertSec:2824.8

SurveyDepth:10320  
TVD:7447.82 Inc:90.18  
Azi:88.16  
VertSec:2919.75

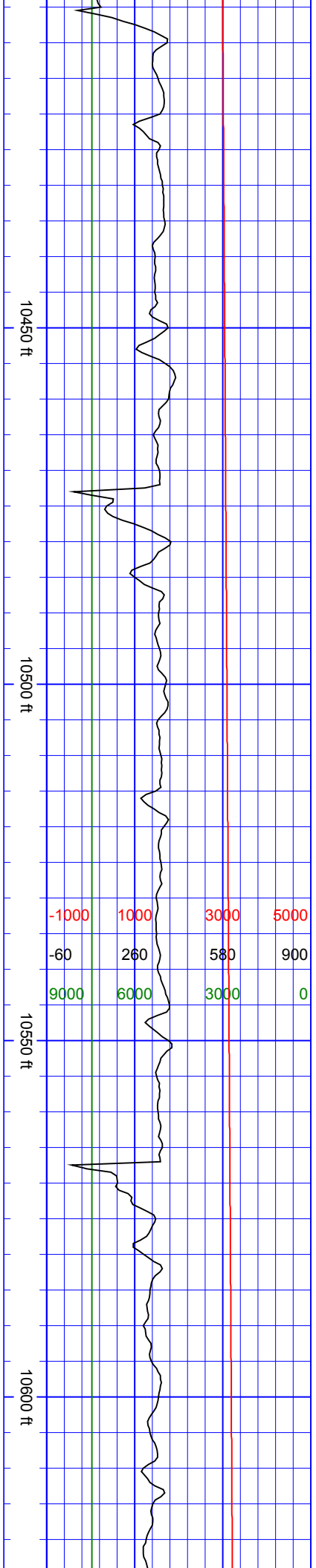


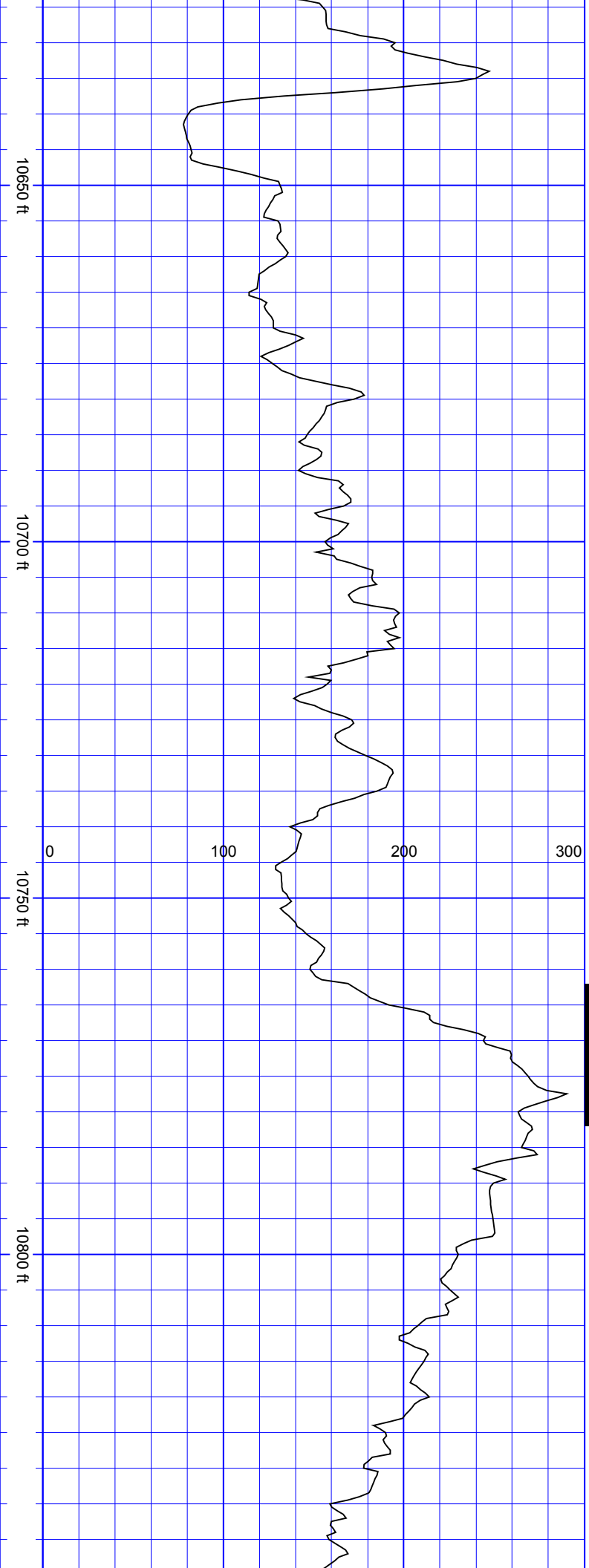


SurveyDepth:10414  
TVD:7447.16 Inc:90.62  
Azi:90.89  
VertSec:3013.73

SurveyDepth:10509  
TVD:7447.3 Inc:89.21  
Azi:91.59  
VertSec:3108.7

SurveyDepth:10604  
TVD:7449.05 Inc:88.68  
Azi:91.33  
VertSec:3203.65

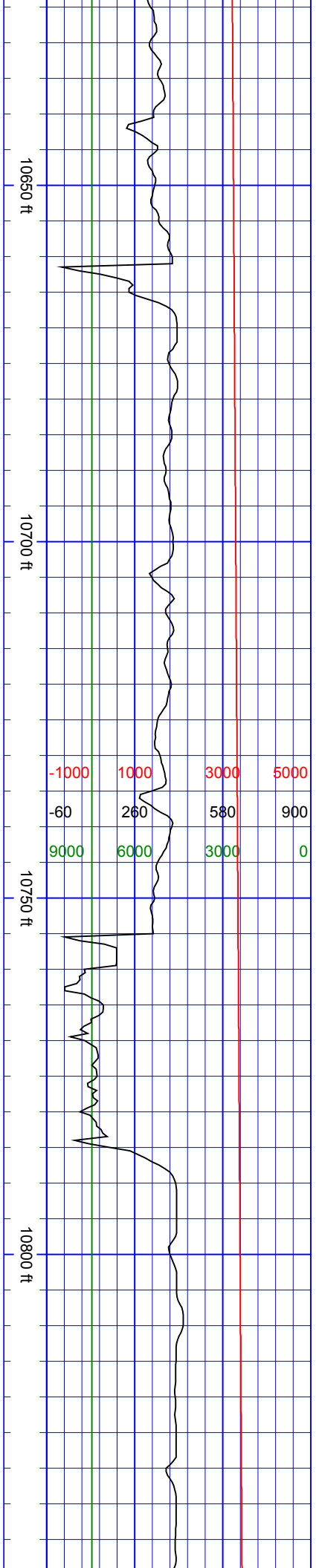




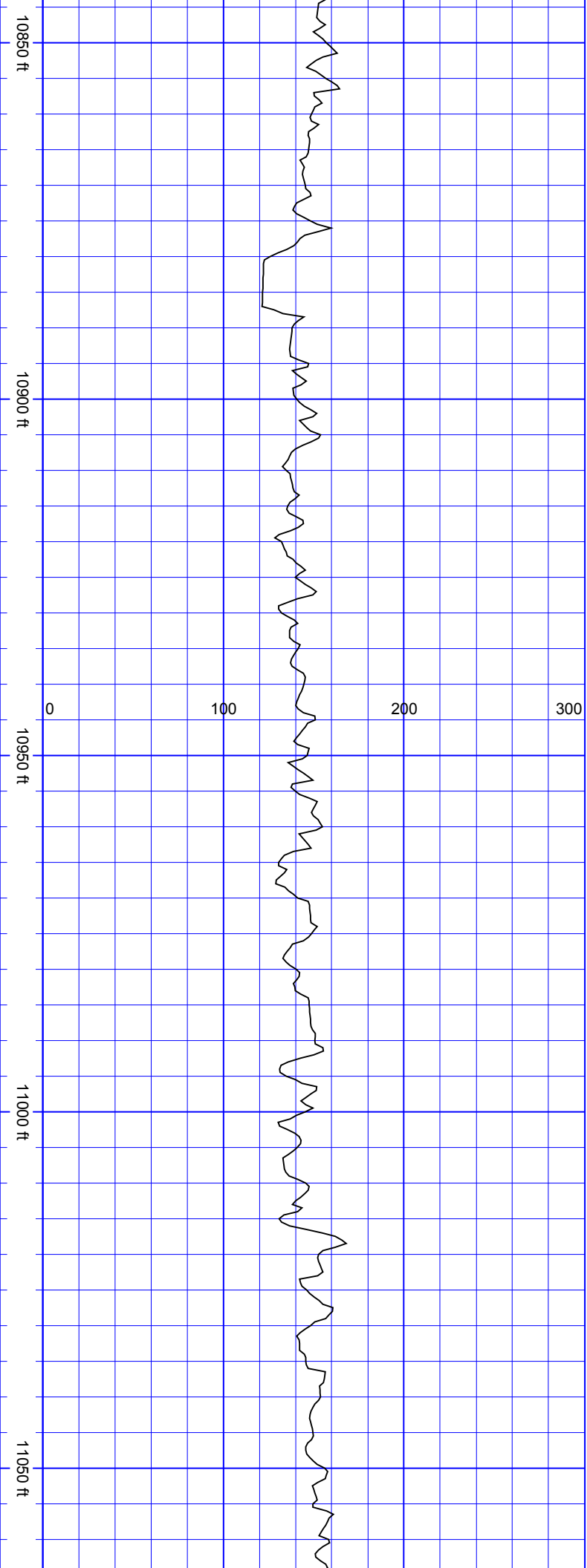
SurveyDepth:10699  
TVD:7452.29 Inc:87.41  
Azi:90.89  
VertSec:3298.57

SurveyDepth:10793  
TVD:7454.31 Inc:90.13  
Azi:91.59  
VertSec:3392.52

SSSSSSSS

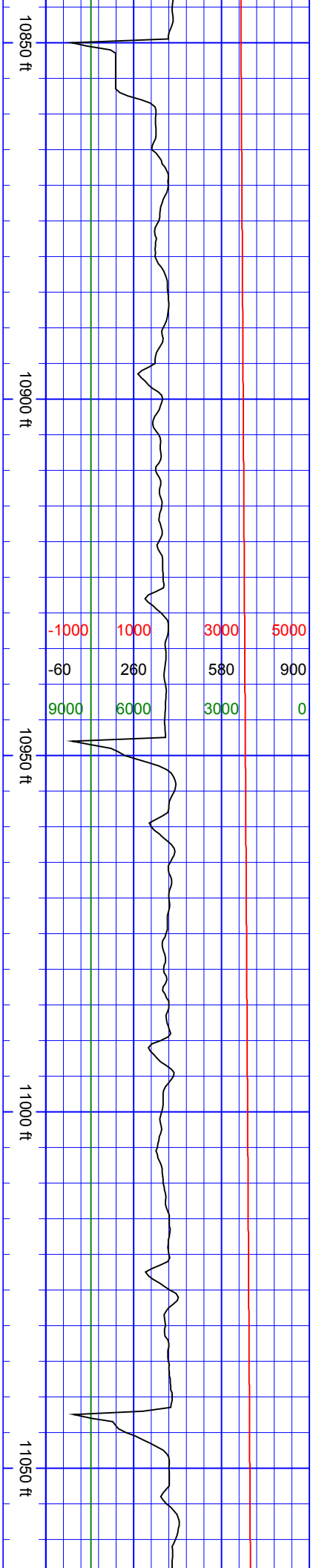






SurveyDepth:10888  
TVD:7453.03 Inc:91.41  
Azi:92.82  
VertSec:3487.43

SurveyDepth:10983  
TVD:7451.71 Inc:90.18  
Azi:89.92  
VertSec:3582.38



11100 ft

11150 ft

11200 ft

11250 ft

SurveyDepth:11077  
TVD:7451.89 Inc:89.6  
Azi:88.51  
VertSec:3676.37

SurveyDepth:11172  
TVD:7451.75 Inc:90.57  
Azi:90.62  
VertSec:3771.36

SurveyDepth:11266  
TVD:7452.11 Inc:88.99  
Azi:87.55  
VertSec:3865.34

11100 ft

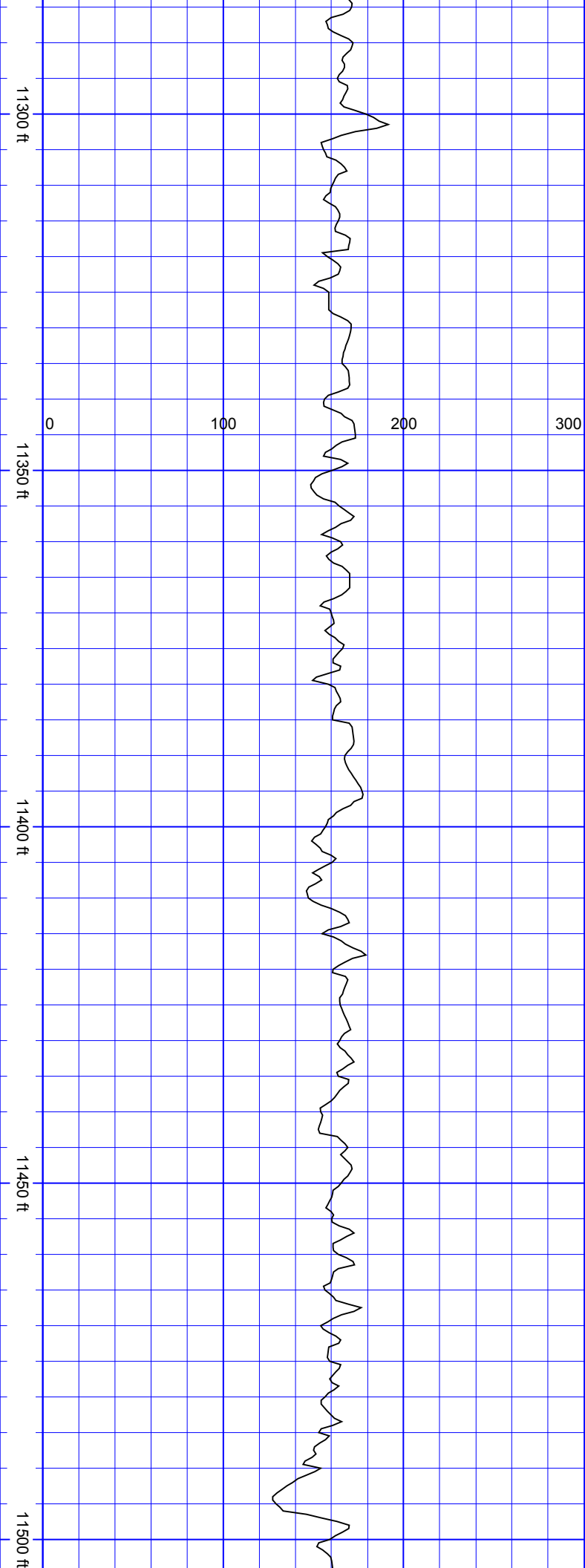
11150 ft

11200 ft

11250 ft

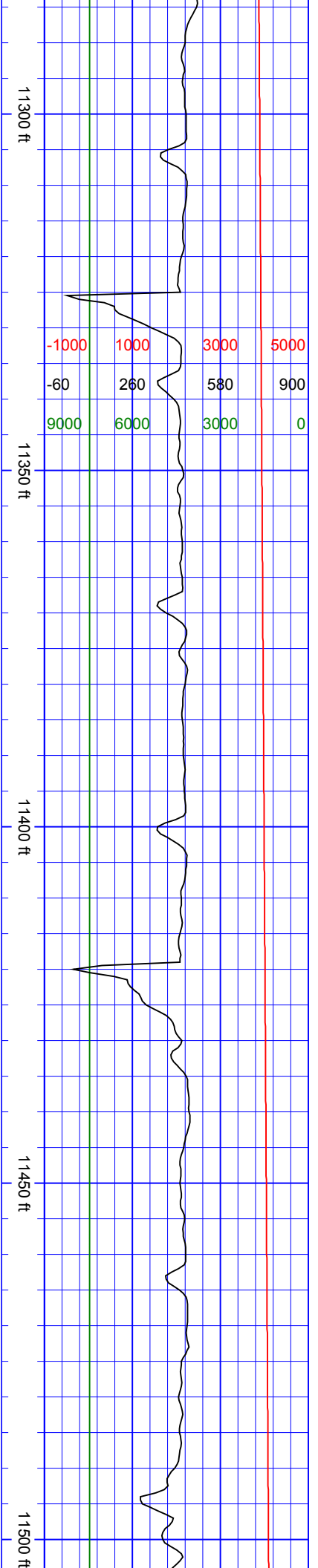
-1000 1000 3000 5000  
-60 260 580 900

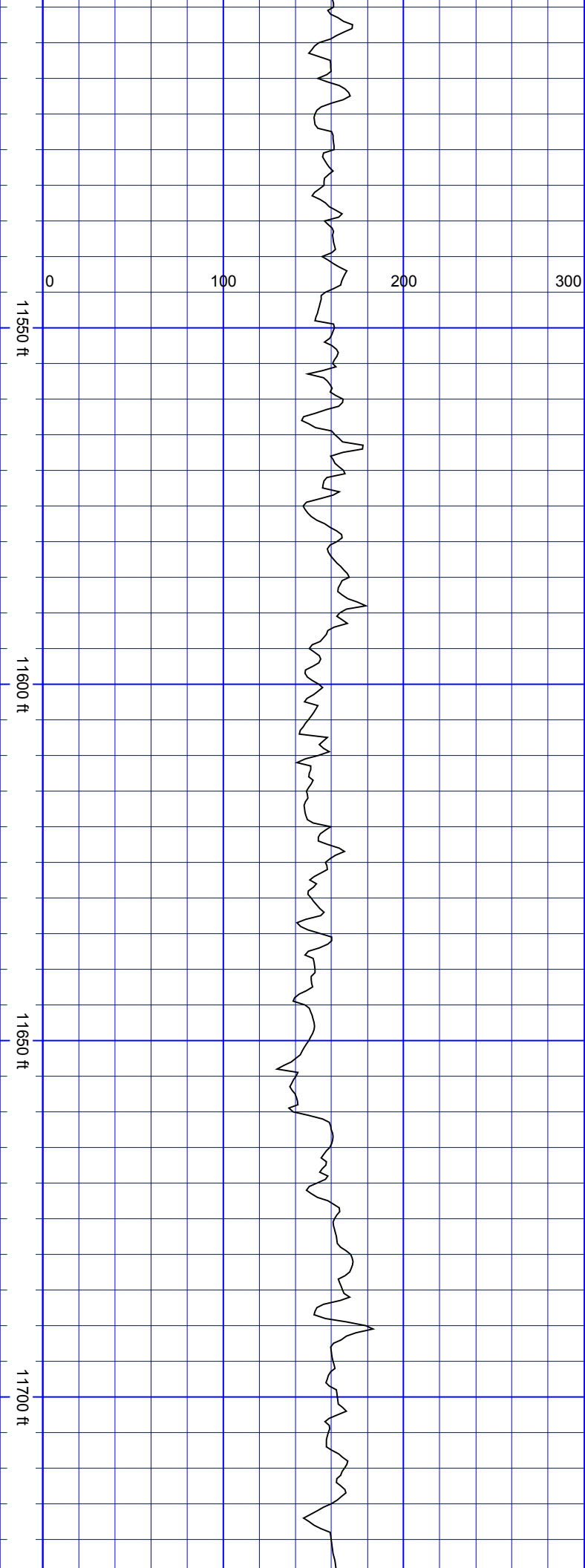
9000 6000 3000 0



SurveyDepth:11361  
TVD:7452.44 Inc:90.62  
Azi:90.09  
VertSec:3960.31

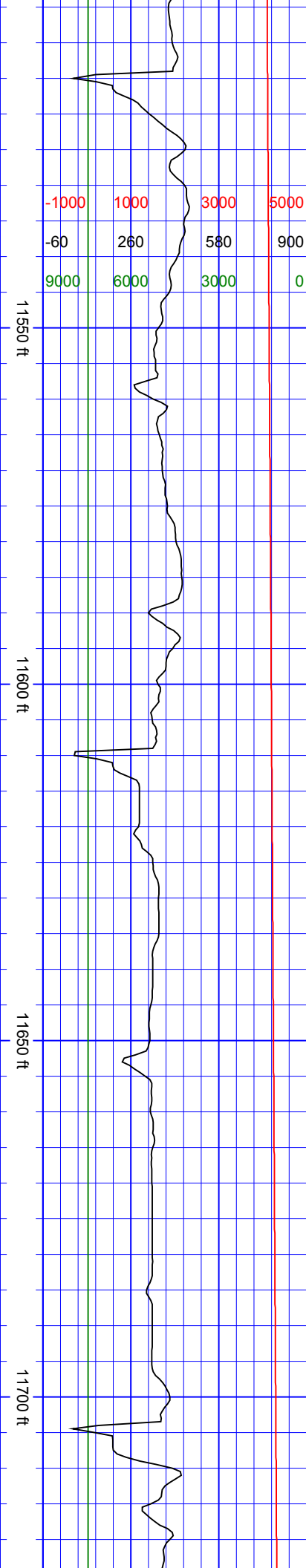
SurveyDepth:11455  
TVD:7451.6 Inc:90.4  
Azi:91.68  
VertSec:4054.29

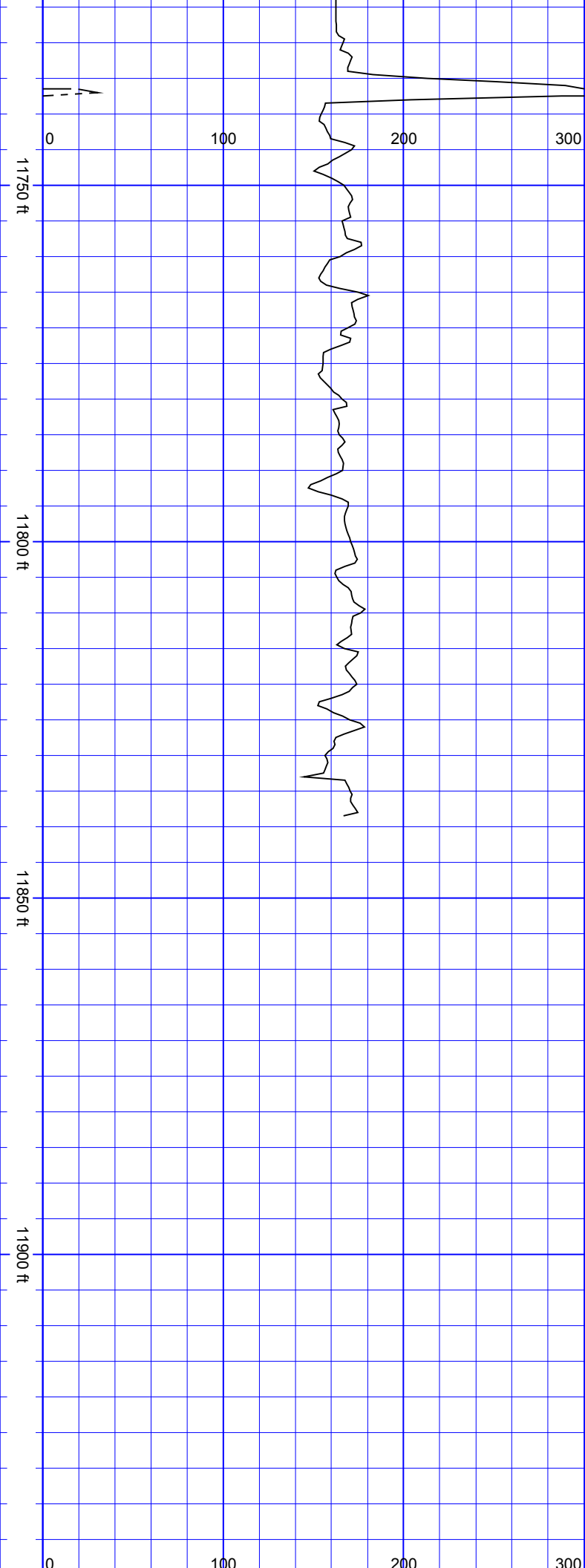




SurveyDepth:11551  
TVD:7450.71 Inc:90.66  
Azi:92.2  
VertSec:4150.22

SurveyDepth:11645  
TVD:7449.92 Inc:90.31  
Azi:91.68  
VertSec:4244.16



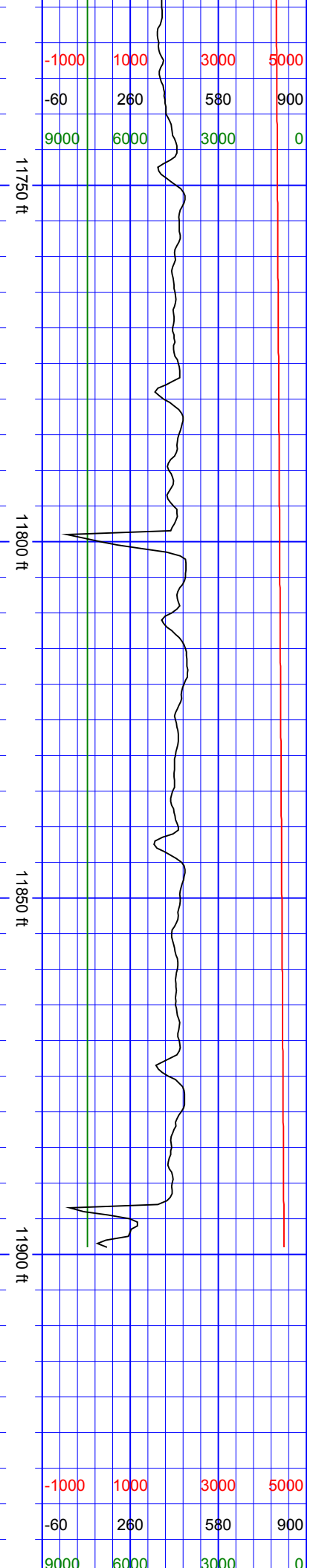


SurveyDepth:11739  
TVD:7450.57 Inc:88.9  
Azi:88.6  
VertSec:4338.14

SurveyDepth:11836  
TVD:7452.05 Inc:89.34  
Azi:89.3  
VertSec:4435.12

Extrapolation to bit  
SurveyDepth:11899  
TVD:7452.78 Inc:89.34  
Azi:89.3  
VertSec:4498.11

August 24, 2018



<div> <div>11950 ft</div> <div>MD Depth "Scale 5" = 100 ft"</div> </div>	<div> <div>9000600030000</div> <div>TVD Depth (ft)</div> <div>-60260580900</div> <div>Drill Rate (ft/hr)</div> <div>-1000100030005000</div> <div>Vertical Section (ft)</div> </div>	<div> <div>ROP - VERT SEC - TVD</div> </div>	<div> <div>Directional Survey</div> </div>	<div> <div>Slide - Rotate</div> </div>	<div> <div>0100200300</div> <div>Real Time Gamma (AAPI)</div> </div>